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"CHEMICUS CANNON LONDON."

**Established in
[AUSTRALASIA, 1885.]**

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AUGUST 24, 1912.

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1709



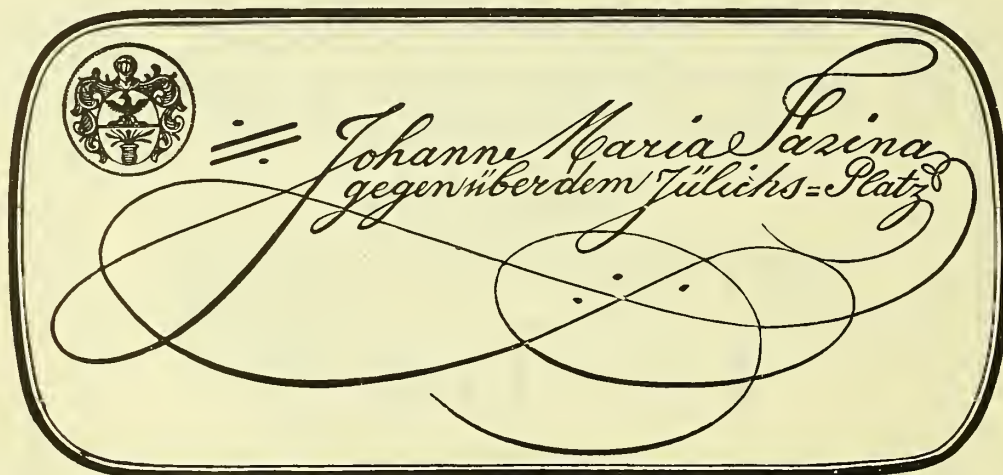
1912

JOHANN MARIA FARINA,

GEGENÜBER DEM JÜLICH-S-PLATZ,

COLOGNE.

Established at Cologne A.D. 1709.



The above is an exact facsimile of my registered Label. Owing to the many close imitations of this, intending purchasers of Eau de Cologne should closely examine the label of every bottle, compare it with the one shown here, and note carefully **the address: Gegenüber dem Jülich-S-Platz, in addition to the name Johann Maria Farina.**

I would point out that I am the manufacturer of the "**Genuine**" Eau de Cologne, and **the only Firm that has continuously and uninterruptedly** produced Eau de Cologne from the receipt of the inventor since 1709. During this time—**over 200 years**—the business has been carried on at the same address, viz.: **Gegenüber dem Jülich-S-Platz**, by a direct descendant of the founder of my firm without a break.

These facts are sufficient to enable the public to properly value the incorrect statements put forward by various competitors and manufacturers of spurious imitations of my production.

(Signed) **JOHANN MARIA FARINA,**
Gegenüber dem Jülich-S-Platz,
 COLOGNE, Germany.

Sole Agents for Great Britain and Ireland—

Messrs. J. & R. McCracken, 10 Bush Lane, Cannon St., LONDON, E.C.

Priced Window Cards, Show Cards and Printed Matter on Application.

(2)

**WHEN OTHER SOURCES
FAIL!**

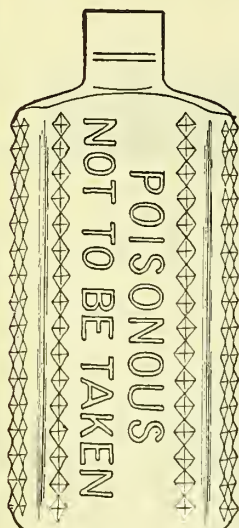
**TRY
RICHARDSONS'**

RICHARDSONS' OF LEICESTER

THE "POISONOUS" POISON BOTTLE

MADE IN ENGLAND.

The CHEAPEST POISON BOTTLE IN THE MARKET.



Front.

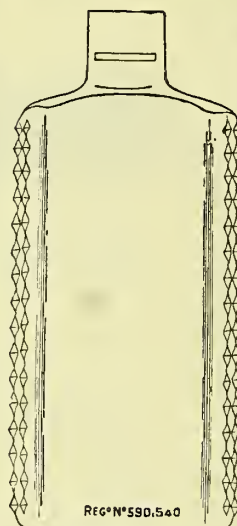
Owing to the numerous requests from the trade for a **CHEAP** Bottle to comply with the new Privy Council regulations made under the "Poisons and Pharmacy Act, 1908," the Inventors of the "Practical" Poison Bottle have designed the "**POISONOUS**" **POISON BOTTLE**, which complies with all the requirements of the new Act.

This Bottle is made with a ridge in the neck, which enables it to be used for either a rubber Stopper or a Cork, and is made in a rich blue colour, also in pale green for Ammonia.

Compare the following Prices with those of other Poison Bottles, and you will find them the lowest that can be obtained:—

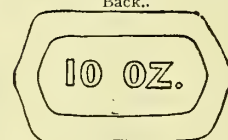
PRICES PER GROSS.

1 oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	10 oz.	12 oz.	16 oz.	20 oz.	24 oz. or 25 oz.
5/-	5/9	6/9	7/9	10/-	11/6	15/-	16/6	20/9	23/6	27/9



Back.

The "**POISONOUS**" **POISON BOTTLE** can be obtained from Messrs. Maw, Son & Sons; Evans Sons Lescher and Webb (London and Liverpool); Sangers; May, Roberts and Co., Ltd., or any other of the leading Wholesale Houses.



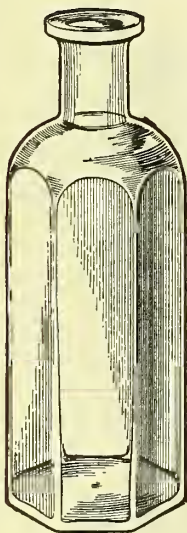
Bottom.

THE

"IDEAL" BOTTLE

THE BEST FOR

SPECIALITIES AND PREPARATIONS.



The several flat sides have the effect of brilliantly reflecting the contents, thus greatly increasing the natural brightness of the preparation. This is evident when seen in a good light, as in a shop window. A good, attractive bottle, well labelled and finished, frequently sells a preparation.

LOOK AT THE PRICES (PER GROSS).

	$\frac{1}{2}$ -oz.	1-oz.	1 $\frac{1}{2}$ -oz.	2-oz.	3-oz.	4-oz.	6-oz.	8-oz.	10-oz.	12-oz.	16-oz.	20-oz.
White Glass Plain	4/6	5/-	5/9	6/6	7/3	8/9	10/9	13/-	15/6	17/-	22/-	27/-
White Glass Globe Stoppered	18/6	19/-	20/-	20/6	21/9	24/-	28/-	31/6	34/-	37/-	44/-	48/-
Amber and Actinic Plain ...	5/3	5/9	6/6	7/3	8/-	9/6	12/3	14/-	17/-	18/6	24/-	29/-
Amber and Actinic Globe Stoppered	19/-	20/-	20/9	21/6	22/6	25/6	29/6	33/-	36/6	39/-	47/-	52/-

Compare these quotations with those of other bottles, especially the stoppered ones.

IF YOU WANT TO INCREASE THE SALE OF YOUR
SPECIALITIES, TRY THEM IN THE "IDEAL" BOTTLE.

The "Ideal" Bottle can be obtained from Messrs. MAW, SON & SONS, EVANS SONS LESCHER & WEBB, Ltd., SANGERS, MAY, ROBERTS & CO., Ltd., J. F. MACFARLAN & Co. (Edinburgh), and other leading Wholesale Houses.

MADE IN ENGLAND.



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Gladwin, T. H.

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Flugel & Co.
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Reitmeier & Co.
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Wood, Vincent

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Wood, Vincent

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Oldfield, Pattinson & Co.

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Fentiman, A. G.
Fentiman, A. J., & Co.
Garthwaite, H.
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Wardale & Co.

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Christy, T., & Co.
Cook, E., & Co., Ltd.
Eueryl, Ltd.
Jewsbury & Brown
John Strange Winter
Mason Bros. & Chapman
Maw, S., Son & Sons
Newbery, F., & Sons, Ltd.
Odol Chemical Works
Parke, Davis & Co.
Reidel, J. D., & Co.
Sangers
Standard Tablet & Pill Co., Ltd.
Woolley, J., Sons & Co., Ltd.

DEPILATORY

Goring, W. J.

DEVELOPERS (PHOTO)

Barker's Photo Co.
Evans Sons Lescher & Webb, Ltd.
Express Developing Co.
Griffin, John J., & Sons, Ltd.
Johnson & Sons (Mfg. Chks.)

DEXTRINE

Fink, F., & Co.

DIABETIC FOODS

Van Abbot, G., & Sons

DISINFECTANTS

Baiss Bros. & Stevenson, Ltd.
Burt, Boulton & Haywood, Ltd.
Calvert, F. C., & Co.
Condy & Mitchell, Ltd.
Cook, E., & Co., Ltd.
Ellison, Henry, Ltd.
Sanitas Co., Ltd.
Willows, Francois B. & T.
Wright, Layman & Umney, Ltd.

DISINTEGRATORS

Hardy Patent Pick Co., Ltd.

DRUGGISTS' SUNDRIES

Ayrton, Saunders & Co., Ltd.
Barclay & Sons, Ltd.
Berliner, Arthur
Burge, Warren & Ridgley, Ltd.
Bush, H. W., & Co., Ltd.
Christy & Co.
Edwards, W., & Son
Evans Sons Lescher & Webb, Ltd.
Hovenden, R., & Sons, Ltd.
Manson, R.
Maw, S., Son & Sons
May, Roberts & Co., Ltd.
Newbery, F., & Sons, Ltd.
Poths, H., & Co.
Quelch, H. C., & Co.
Reuter, R. J.
Richardson, John, & Co., Lei-
cester, Ltd.
Sangers
Schutze, F., & Co., Ltd.
Solport Bros.
Swales, Thomas
Toogood, W., Ltd.
Wattenbach, O.
Woolley, J., Sons & Co., Ltd.

DRUGS, CRUDE

Brook, Parker & Co., Ltd.
Gathergood's Exor.
Goodhall, Backhouse & Co.
Parkinson-Worswick, J.
Potter & Clarke, Ltd.
Ransom, W., & Son
Schmitt & Wildenhayn
Sparks, White & Co., Ltd.

DYEWARES

Clemons, Marshall & Carbert

EAU DE COLOGNE

Farina, J. M.
Farina, J. M. (No. 4)
Fickns, Courtnay & Co.
McCracken, J. & R.
Oldfield, Pattinson & Co.
Renter, R. J.
Schutze, F., & Co., Ltd.
Spurway and Cie.

EDUCATIONAL INSTITS.

Bath & West of England College
Birmingham & Midland College
Borough Polytechnic
City of London College
College of Preceptors
Elt's College
Fairchild Scholarship
Glasgow School of Pharmacy
Liverpool School of Pharmacy
London College of Pharmacy
North of England School
Northern College of Pharmacy
Royal Dispensary School
School of Pharmacy
South of England College
University of Bristol
Westminster College

EFFERVESCENT PREPS.

Allen & Hanburys, Ltd.
Bishop, Alfred, Ltd.
Bristol-Myers Co.
Cupal, Ltd.
Greenwich Lemonade Co.
Guest, Thos., & Co.
Lloyd, T. Howard, & Co.
Wright, Layman & Umney, Ltd.
Wyleys, Ltd.

ELASTIC HOSIERY

Ayrton, Saunders & Co., Ltd.
Burge, Warren & Ridgley, Ltd.
Haywood, J. H., Ltd.
Maw, S., Son & Sons
Surgical Hosiery Co., Ltd.
Wood, Vincent

ELECTRICAL NOVELTIES

Millard Bros., Ltd.
Ward & Goldstone

EMERY AND CLOTH

Oakey, J., & Son, Ltd.

EMULSIFIERS

Bennett, Sons & Shears, Ltd.
Wilkinson, S. W., & Co.

EMULSIONS, C. L. O., &c.

Baiss Bros. & Stevenson, Ltd.
Burgoyne, Burhidges & Co.
Cupal, Ltd.
Lorimer Marshall, Ltd.
Stevenson, H. E., & Co.

ENEMAS

Burge, Warren & Ridgley, Ltd.
Ingram, J. G., & Son
Maw, S., Son & Sons
Newbery, F., & Sons, Ltd.
Warne, W., & Co., Ltd.

ESSENCES, SOL. AND FRUIT

Alliance Drug & Chem. Co.
Barnett & Foster
Boake Roberts & Co., Ltd.
Bush, W. J., & Co., Ltd.
Hay, Wm., Ltd.
London Essence Co.
Newball & Mason
Stevenson & Howell, Ltd.
Stevenson, H. E., & Co.

ESSENCES, CONCRETE

Spurway et Cie.

ETHERS

Baiss Bros. & Stevenson, Ltd.
Duncan, Flockhart & Co.
Howards & Sons, Ltd.
Maofarlan, J. F., & Co.
May & Barker, Ltd.
Tyrer, T., & Co., Ltd.
White, A., & Sons

EUCALYPTUS OIL

British Drug Houses, Ltd., The

EXTRACT OF HERBS

Newball & Mason
Potter & Clarke, Ltd.

EXTRACTS (MEDICINAL)

Allen, Stafford & Sons, Ltd.
Burroughs, Wellcome & Co.
Evans Sons Lescher & Webb, Ltd.
Gathergoods Exor.
Hawlett, C. J., & Son, Ltd.
Parke, Davis & Co.
Ransom, W., & Sons

FACTORY, & C., SITES

Great Western Railway
North-Eastern Railway

FERTILIZERS

With's Manure Co.

FILTER PAPER

Burgoyne, Burdidges & Co.

FILTERS

Berkefeld Filter Co., Ltd.

FLY-CATCHERS

Alabastine Co. (British), Ltd.
Barraclough, J., & Co.
Brook, Parker & Co., Ltd.
Ford, Shapland & Co.
Frowein, C.
Kay Bros., Ltd.
Smith, Jno. H., & Co.
Strong, Christy
Tunbridge & Wright

FOODS, INVALID, ETC.

Allen & Hanbury's, Ltd.
Bell (John), Hills & Lucas, Ltd.
Benger's Food, Ltd.
Brand & Co., Ltd.
Burgoyne, Burdidges & Co.
Cox, Arthur H., & Co., Ltd.
Deans, Logan & Co., Ltd.
Fairchild Bros. & Foster
Horlick's Malted Milk Co.
"Lemco and Oxo"
Lofthouse & Saltmer, Ltd.
Menley & James, Ltd.
Natural Food Co., Ltd.
Neave, Josiah R., & Co.
St. Ivel, Ltd.
Southall Bros. & Barclay, Ltd.
Willows, Francis, B. & T.
Woolley, Jas. Sons & Co., Ltd.

FULLER'S EARTH

Mumford, G. S., & Sons

FUMIGATORS

Sanitas Co., Ltd.

GLYCERIN

Price's Patent Candle Co., Ltd.

GLYCEROPHOSPHATES

Merck, E.
Pointet & Girard
Reitmeyer & Co.

GREASE REMOVER

Perkin & Co., Ltd.

GRINDERS, DRUG, & C.

Allen, Stafford & Sons, Ltd.
Goodall, Backhouse & Co.
Willows, Francis, B. & T.
Wright, Layman & Umney, Ltd.

GRINDERS (MACHINE)

Hardy Patent Pick Co., Ltd.

QUMS

Fink, F., & Co.
Kidston, W. M., & Co.

HAIR PREPARATIONS

Aironal, Ltd.
Alexandre, L.
Anglo-Continental Trading Co.
Blackie, Robert
Edwards' "Harlene" Co.
Harrison, G. W.
John Strange Winter
Nyto Preps., Ltd.
Osborne, Garrett & Co.
Robare's Aureoline
Saunders, J. Tozeau, Ltd.
Van Essen, James & Co., Ltd.
Warner Oliver, Ltd.

HAIR DYES

Harker, Staggs & Morgan, Ltd.

HAND-CARTS, & C.

Crewe & Co.

HAT CLEANERS

Christy, Thos., & Co.
Senior, Alf., & Co.

HAT DYES

Whitaker & Co.

HEARING APPARATUS

Stolz Electrophone Co., Ltd.

HERBS

Brook, Parker & Co., Ltd.
Potter & Clarke, Ltd.
Ransom, W., & Son

HOMEOPATHIC MEDICINES

Ashton & Parsons, Ltd.
Keene & Ashwell, Ltd.

HOT-WATER BOTTLES

India Rubber, Gutta-percha &
Telegraph Works Co., Ltd.
North British Rubber Co., Ltd.
Wood, Vincent

HOTELS

Esmond Hotel
Kingsley Hotel
Thackeray Hotel

HYDROGEN PEROXIDE

May & Baker, Ltd.
Sanitas Co., Ltd.

Tyrer, T., & Co., Ltd.

HYPOPHOSPHITES

May & Baker, Ltd.
Tyrer, T., & Co., Ltd.

ICHTHYOL

Ichthyol Gesellschaft

INHALERS

Oxo Medicated Air Co., Ltd.

INSECTICIDES

Christy, T., & Co.
Nyto Preparations, Ltd.
Tomlinson & Hayward, Ltd.

INSECT PENCILS

Chaline & Co.

INSECT POWDER

Danyasz Virus, Ltd.
Keating, Thomas

INSTEP SUPPORTS

Pond, H. J.
Schohl Manfg. Co.

IRISH MOSS

Cumming, J. W.

JUJUBES

Guest, Thos., & Co.
Potter & Clarke, Ltd.

LANOLINE

Burroughs Wellcome & Co.

LARD

Ewen, J., & Sons

LAVENDER WATER.

Bush, W. J., & Co., Ltd.
Maddocks & Co.
Rivers, Hill & Co., Ltd.

LEATHER BLACK

Whitaker & Co.

LECITHIN

Chem. Works "Victoria"
Williams, G. M., & Co., Ltd.

LEMONADE POWDER

Greenwich Lemonade Co.

LETTER FILES

Eeles, Walker & Co.

LIME JUICE AND CORDIAL

Evans Sons Lescher & Webb, Ltd.
Goodall, Backhouse & Co.
Idris & Co., Ltd.

LINSEED, CRUSHED, & C.

Mumford, G. S., & Sons

LINTS

Liverpool Lint Co.
Maw, S., Son & Sons
Robinson & Sons, Ltd.
Taylor, W. J.
Vernon & Co., Ltd.

LIQUORICE JUICE

Apollo
Evans Sons Lescher & Webb, Ltd.
Jackson, E. E.
Mumford, G. S., & Sons
Solazzi

LITHIA SALTS

British Drug Houses, Ltd., The
Maofarlan, J. F., & Co.
May & Baker, Ltd.

LOOFAHS

Internal. Sponge Importers, Ltd.
Solport Bros.
Swales, Thomas

LOZENGES

Ayrton, Saunders & Co., Ltd.
Guest, Thos., & Co.
Jackson, E. E.
Potter & Clarke, Ltd.
Raines & Co.
Standard Tablet & Pill Co., Ltd.
Warrick Bros.

MACHINERY, PHARMACAL

Allen & Hanbury's, Ltd.
Bennett, Sons & Shears, Ltd.
Comet Chemical Co., Ltd.
Gardner, Wm., & Sons, Ltd.
Hardy Patent Pick Co., Ltd.
Lister, R. A., & Co., Ltd.
Stokes, F. J., & Co.
Stokes, F. J., Machine Co.
Wilkinson, S. W., & Co.

MAGNESIA AND ITS PREPS.

British Drug Houses, Ltd., The
Corbyn, Stacey & Co., Ltd.
Henry, T. & W.
Howards & Sons, Ltd.
May & Baker, Ltd.
Phillips, Chas. H., Chem. Co.
Washington Chemical Co., Ltd.

MALT EXTRACT & PREPS.

Boulton, Macro, Ltd.
British Diamond Co., Ltd.
British Drug Houses, Ltd., The
Burroughs Wellcome & Co.
Davies, Sons & Co.
Evans Sons Lescher & Webb, Ltd.
Paine & Co., Ltd.

MANICURE CASES

Hovenden, R., & Sons, Ltd.

MARKING INK

John Bond ("Crystal Palace")

MEAT EXTRACTS

Armour & Co., Ltd.
Brand & Co., Ltd.
"Lemco and Oxo"
Tooth's Extract of Meat Co.

MENTHOL CO² ES

Pharm. Ind. Ges. Offenbach

MERCURIALS

Alliance Drug & Chem. Co.
Howards & Sons, Ltd.
May & Baker, Ltd.
Tyrer, T., & Co., Ltd.

METAL GOODS

Bette & Co., Ltd.
Eley Bros., Ltd.

METHYLATED SPIRIT

Burrough, J., Ltd.
Macnair, A. & Co.
Preston's Liverpool Distillery
Randall & Son, Ltd.

MICROSCOPES

Raphael's, Ltd.

MILK POWDER

Trufood, Ltd.
West Surrey Central Dairy Co.

MINERAL WATERS, SALTS

Apollinaris Co., Ltd.
Hughes, E., Griffiths
Ingram & Royle, Ltd.
Vichy (State Springs)
Vittel

MIXERS AND SIFTERS

Comet Chemical Co., Ltd.
Gardner, Wm. & Sons (Gloucester), Ltd.

MUSTARD PLASTER

Rueff, Julius

NIGHT-LIGHTS

Prescott & Co.

OINTMENTS

Blackie, Robert
Burgess, E.
Calvert, F. C., & Co.
Cartwright, W. B., Ltd.
Cox, Arthur H., & Co.
Oldfield, Pattinson & Co.
Pent Products (Sphagnol), Ltd.
Smith, Maurice.
Zimmermann, Chas., & Co.

OILS, ESSENTIAL

Allen, Stafford & Sons, Ltd.
Alliance Drug & Chemical Co.
Boake, A., Roberts & Co., Ltd.
Bush, W. J., & Co., Ltd.
Dodge & Olcott Co.
Evans Sons Lescher & Webb, Ltd.
London Essence Co.
Poppelreuter, W.
Ransom, W., & Son
Schimmel & Co.
Spurway & Cie
Stevenson & Howell, Ltd.
Varaldi, F.
Wright, Layman & Umney, Ltd.
Zimmermann, Chas., & Co.

OILS, MINERAL, FATTY

Allen, Stafford & Sons, Ltd.
Price's Patent Candle Co.
Schliemann's Oil & Ceresine Co.
Stern Sonneborn Oil Co., Ltd.

OLIVE OIL

Goodall, Backhouse & Co.
Sparks, White & Co., Ltd.
Varaldi, F.

OPTICAL GOODS

Anglo-American Optical Co.
Botwright & Grey
Darton, F., & Co.
Maw, S., Son & Sons
Nitsche & Gunther Opt. Co., Ltd.
Raphael's, Ltd.

OPTICAL TUITION

British Optical Institute, Ltd.
Dioptrio Association
Spectacle Makers' Company

ORANGE QUININE WINE

Hobson, Joseph, & Son
Melrose-Drover Co., Ltd.
Millar, A., & Co., Ltd.
Robinson, B., & Co., Ltd.

ORGANOTHERAPY PRODUCTS

British Organotherapy Co., Ltd.

OTTO OF ROSE

Spurway & Cie

OTTO OF ROSE (SYNTH.)

Bush, W. J., & Co., Ltd.
Kerfoot, Thos., & Co.
Wright, Layman & Umney, Ltd.

PACKED GOODS

Allen & Hanbury's, Ltd.
Baiss Bros. & Stevenson, Ltd.
Blackie, Robert
Boulton Maoro, Ltd.
Brook, Parker & Co., Ltd.
Cox, Arthur H., & Co., Ltd.
Christy, Thos., & Co.
Cupal, Ltd.
Davies, Sons & Co.
Evans Sons Lescher & Webb, Ltd.
Goodall, Backhouse & Co.
Harker, C. R., Staggs & Morgan
Lorimer Marshall, Ltd.
May, Roberts & Co., Ltd.
Newhall & Mason
Oldfield, Pattinson & Co.
Potter & Clarke, Ltd.
Richardson, John, & Co., Leicester, Ltd.
Sangers
Standard Tablet & Pill Co., Ltd.

PALATINOLIDS

Oppenheimer, Son & Co., Ltd.

PAPER HANDKERCHIEFS

Powell, J. T., & Co.

PASTILLES

Allen & Hanbury's, Ltd.
Asche, C. F., & Co.
Burroughs Wellcome & Co.
Evans Sons Lescher & Webb, Ltd.
Taverner & Sons, Ltd.
Valda Pastilles
Warrick Bros.

PATENT AGENT

Barker, R. W.

PERFUME MATERIALS

Boehringer, C. F., & Soehne
Bush, W. J., & Co., Ltd.
Delvendahl & Kuentzel
Kerfoot, T., & Co.
Naef, M., & Co., Succr.
Schimmel & Co.
Schwarz, A. W.
Spurway & Cie.
Varaldi, F.
Wright, Layman & Umney, Ltd.
Zimmermann, C., & Co.

PEPPERMINT OIL

Bing, M. & A. C.
Bnsh, W. J., & Co., Ltd
Dodge & Olcott Co.

PERFUMES

Allen & Hanburys, Ltd.
Baiss Bros. & Stevenson, Ltd.
Jannetta Perfumery, Ltd.
Bronnley, H., & Co., Ltd.
Bush, W. J., & Co., Ltd.
Christy, T., & Co.
Crown Perfumery Co.
Erasmio Co., Ltd.
Evans Sons Lescher & Webb, Ltd
Gambles, J. C., & Co.
Haliflor Co.
John Strange Winter
Kerfoot, T., & Co.
Lescol Perfumery Co.
McCracken, J. & R.
Priohard & Constance, Ltd.
Queloh, H. C., & Co.
Rivers, Hill & Co., Ltd.
Warrick Bros.
West, T., & Son
Wolff, F., & Sohn

PESSARIES (SOLUBLE)

Burge, Warren & Ridgley, Ltd.
Rendell, W. J.

PETROLEUM JELLY

Chesebrough Manfg. Co.
Gardner & Andrew
Schliemann's Oil & Ceresine Co.
Stern, Sonneborn Oil Co., Ltd.

PHOTO. CHEMICALS

Boehringer, C. F., & Soehne
Griffin, John J., & Sons, Ltd.
Johnson & Sons (Mfg. Chts.), Ltd
Reitmeyer & Co.

PHOTO. GOODS

Ayrton, Saunders & Co., Ltd.
Barclay & Sons, Ltd.
Burroughs Wellcome & Co.
Evans Sons Lescher & Webb, Ltd
Express Developing Co.
Ilford Ltd.
Kent, G. B., & Sons, Ltd.
Lennon, Ltd.
May, Roberts & Co., Ltd.
Newbery, F., & Sons, Ltd.
Rajar, Ltd.

PHOTO. POSTCARDS, ETC.

Rajar, Ltd.

PILL MAKERS

Cox, A. H., & Co., Ltd.
Davies, Sons & Co.
Richardson, John, & Co., Leicester, Ltd.
Standard Tablet & Pill Co., Ltd.

PLASTERS

Allcock Manfg. Co.
Berliner, Arthur
Dalmas, A. de St., & Co.
Galen Manfg. Co., Ltd.
Leslies, Ltd.

PLATE POWDER

Lees, A., & Co.

PLEATED PAPER

Darter, Wilkinson & Co.
Smith Bros. & Co.

POLISHES (VARIOUS)

Bradley & Bourdas
Oakley, J., & Sons, Ltd.

POSTAL BOXES

Eeles, Walker & Co.
Robinson & Sons, Ltd.

POWDER PAPER

Prichard & Constance, Ltd.

PRESS CUTTINGS

Central News

PRINTERS

Clyde Press
Ford, Shapland & Co.
Harrison & Waide
Snttley & Silverlock, Ltd.
Townsend, J., & Sons

PRINTING PRESS

Excelsior Printers' Supply Co.
Paragon Press Co.

PROPRIETARY ARTICLES

Anglo-American Pharm. Co.
Anglo Indian Drug & Chem. Co.
Arnfield, J. C., & Sons, Ltd.
Ashton & Parsons, Ltd.
Barclay & Sons, Ltd.
Beecham, T.
Bow's Liniment, Ltd.
British Drug Houses, Ltd., The
Burgess, E.

PROPRIETARY ART.—cont.

Cadinol Co.
Carniock, G. W., Co.
Chameleon Oil Co., Ltd.
Christy, T., & Co.
Coleman & Co., Ltd.
Corbyn, Stacey & Co., Ltd.
Crimson Cross Dispensary
Cupal, Ltd.
Curling, Geo., Wymau & Co.
Cyona Co., Ltd.
Daisy, Ltd.
Davenport, J. T., Ltd.
Demuth, K.
Dialon Co.
Dunoon, Flockhart & Co.
Edwards, W., & Son
Evans Sons Lescher & Webb, Ltd
Faulding, F. H., & Co.
Fellows' Med. Manfg. Co.
Fennings, Alfred
Ferris & Co., Ltd.
Fox & Co. (Liverpool), Ltd.
Freeman's Chlorodyne, Ltd.
Enlford, C. E., Ltd.
Gambles, J. C., & Co.
Goodall, Backhouse & Co.
Harrison, Geo. W.
Henry, T. & W.
Hommel's (Dr.), Hæmatogen
Hughes, E. Griffiths
Ichthyol Gesellschaft
International Laboratories
Kay Bros. Ltd.
Kutnow, S., & Co., Ltd.
Lalor's Phosphodyne
"Lemco and Oxo"
Lofthouse & Saltmer
Martindale, W.
May, Roberts & Co., Ltd.
Mer-Syren (1911), Synd., Ltd.
Newbery, F., & Sons, Ltd.
Odol Chemical Works
Oppenheimer, Son & Co., Ltd.
Owbridge, W. T., Ltd.
Phillips, Chas. H., Chem. Co.
Pontogen Co.
Primer, J.
Purdue, Ltd.
Regulin Syndicate, Ltd.
Reid, E. J., & Co.
Resinol Chemical Co.
Richter, C., & Co.
Riedel, J. D., Co.
Rnhenstein, Madame H.
Rubwel Co.
Sangers'
Sargol, Ltd.
Schimmel & Co.
Scott & Bowne, Ltd.
Smith, H. Ewbank
Smith, Lewis
Squire & Sons
Standard Tablet & Pill Co., Ltd.
Tefras Speciality Co., Ltd.
Thermogene Co., Ltd.
Thompson & Capper
Tunbridge & Wright
Ucalites
Urillac Syndicate
Valds Pastilles
Wait-and-See Proprietary
Warner, H. H., & Co., Ltd
Warner Oliver, Ltd.
Warrick Brothers
Waterbury Chemical Co.
White, A. J., Ltd.
Wilcox, Jozeau, & Co.
Woodward, W., Ltd.
Wright, Layman & Umney, Ltd.
Zimmermann, C., & Co.

PUFFS

Solport Bros.

PUMPS

Berkefeld Filter Co., Ltd.

QUININE AND SALTS

Alliance Drug & Chem. Co.
Boehringer, C. F., & Soehne
Brunswick Quinine Factory
Corbyn, Stacey & Co., Ltd.
Howards & Sons, Ltd.
Pointet & Girard

RADIO-ACTIVE MINERALS

Harrington Bros., Ltd.

RENNET

Fullwood & Bland
Oldfield, Pattinson & Co.

RESINS AND RESINOIDS

Allen, S., & Sons, Ltd.
Macfarlan, J. F., & Co.
Morson, T., & Son
Ransom, W., & Son
Smith, T. & H., Ltd.

RESPIRATORS

Zimmer & Co.

RUBBER GOODS

Berliner, Arthur
Burge, Warren & Ridgley, Ltd.
Haywood, J. H., Ltd.
Ingram, J. G., & Son
Maw, S., Son & Sons
Surgical Hosiery Co. Ltd.
Tompkins, James, Ltd.
Warne, W., & Co., Ltd.
X. L. Rubher Co.

RUBBER SPONGES

Markt & Co. (London), Ltd.

RUBBER STAMPS

Richford, O. D.

SACCHARIN

Saccharin Corporation, Ltd.

SAMPLE CASES

Keane, Thomas

SANTONIN

Smith, B. A., & Co.

SAPONIN

Field, C. W.

SCALE PREPARATIONS

Morson, T., & Son

SCIENTIFIC APPARATUS

Reynolds & Branson, Ltd.
Perken, Son & Co., Ltd.

SEALS ADVERTISING

Dennis & Lindlam

SEA SALT

Tidman & Son, Ltd.

SEED-DRESSING

Hawker, Arthur E.
Tomlinson & Hayward, Ltd.

SERUMS AND ANTITOXINS

Allen & Hanbury's, Ltd.
Burroughs Wellcome & Co.
Evans Sons Lescher & Webb, Ltd
Parke, Davis & Co.
Schimmel & Co.
Wilcox, Jozeau, & Co.

SHARES

MoAdam & Tuckniss

SHEEP DIPS

Burt, Boulton & Haywood

SHEEP MEDICINES

Pettifer, Stephen, & Sons

SHELLAC

Kershaw, H. E., Ltd.

SHOP FITTING

Ayrton-Graham, Ltd.
Bowling & Son
Cook, George
Evans Sons Lescher & Webb, Ltd
Grant, D.
Josephs, Philip, & Sons, Ltd.
London & Col Manfg. Co.
Maw, S., Son & Sons
Parnall & Sons, Ltd.
Rudduck & Co.
Sangers'

SOAPS, TOILET, &c.

Allen & Hanbury's, Ltd.
Armonr & Co., Ltd.
Bell, John Hills & Lucas, Ltd.
Bronnley, H., & Co., Ltd.
Calvert, F. C., & Co.
Chesebrough Manfg. Co.
Christy, Thos., & Co.
Cook, E., & Co., Ltd.
Erasmio Co. Ltd.
Eueryl, Ltd.
Evans Sons Lescher & Webb, Ltd
Fulford, C. E., Ltd.
Gihhs, D. & W., Ltd.
Hendrie & Co.
Harrison, G. W.
Hovenden, R., & Sons, Ltd.
John Strange Winter
Lescol Perfumery Co.
Olival Anglo-Spanish Soap Co.
Pears, A. & F., Ltd.
Peat Products (Sphagnol), Ltd.
Price's Patent Candle Co.
Resinol Chemical Co.
Sanoper Agency
Wolff, F., & Sohn
Wright, Layman & Umney, Ltd.

SHOULDER STRAPS

Wood, Vincent

SODA FOUNTAINS

Flugel & Co.

SODIUM BICARBONATE

Brunner, Mond & Co., Ltd.
Electrolytic Alkali Co., Ltd.
Howards & Sons, Ltd.
Mumford, G. S., & Sons

SOOTHERS

Butterfield's Pat. Soother Co.
Newbery, F., & Sons, Ltd.
Schutze, F., & Co., Ltd.
Woolf, Lewis

SPECTACLES

Botwright & Grey
Darton, F., & Co.
Maw, S., Son & Sons
Nitsche & Gunther Opt. Co., Ltd
Raphael's, Ltd.

SPICES

Goodall, Backhouse & Co.

SPIRIT OF WINE

Burrough, J., Ltd.
Preston's Liverpool Distillery

SPONGES

Internl. Sponge Importers, Ltd.

SPRAYS

Burge, Warren & Ridgley, Ltd
Hovenden, K., & Sons, Ltd.
Maw, S., Son & Sons
Parke, Davis & Co.
Sangers
Toogood, Wm., Ltd.

SPRINKLER CORKS

Betts & Co., Ltd.

SPRUCE BEER

Hobson, Joseph, & Son

STARCH

Mumford, G. S., & Sons

STILLS

Bennett, Sons & Shears, Ltd.
Brown & Son (Automatic)
Stokes, F. J., Machine Co.

STOPPERS

Stipendum Stopper Co.

SUPPOSITORIES

Peat Products (Sphagnol), Ltd.

SURGICAL APPLIANCES AND DRESSINGS

Allen & Hanbury's, Ltd.
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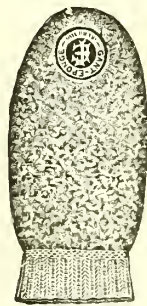
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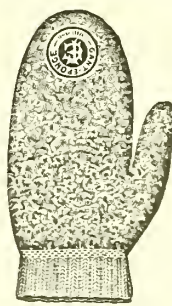
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Retail, 1/- per Box (7 Powders). Wholesale, 11/- doz. Boxes.

Also may be Retailed in Single Packets at 2d.

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 When in the soil I dwell;
 I fear not Birds, nor Rot, nor Smut,
 But grow as strong as—anything.

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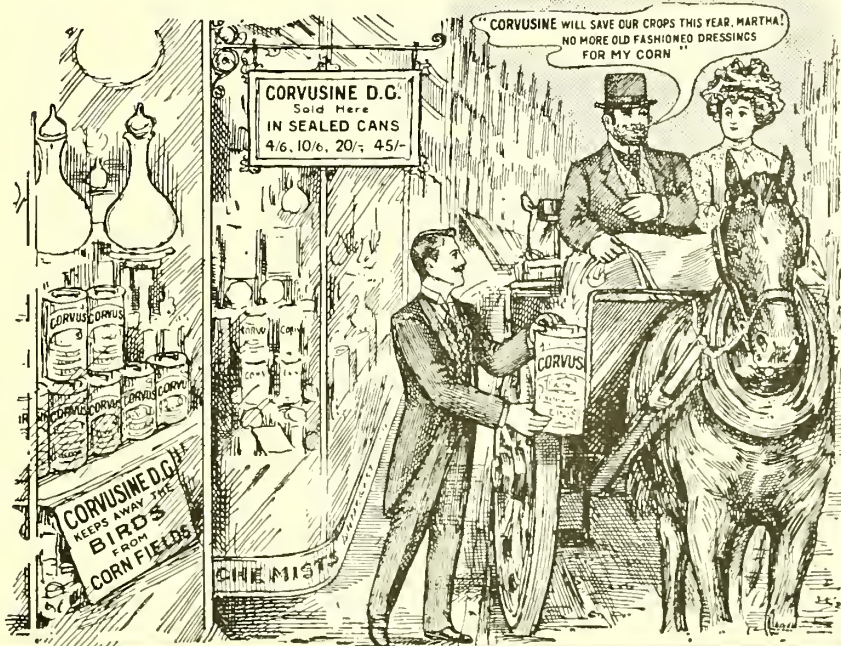
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Ask for SHOWCARDS and HANDBILLS. To be obtained of all Wholesale Houses.

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We shall be pleased to send samples and quotation for our well-known Carbolized Seed Dressing and Ground Vitriol, or to quote for any special formulæ, packed under agent's own name. If you have inquiry for Liquid Seed Dressing, we can supply an approved formula. Sulphate of Copper, Green Copperas, &c., at lowest prices.

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In Packets, $\frac{1}{2}$ lb., $\frac{1}{4}$ lb., and 1 lb.; also in Tins, $\frac{1}{2}$ lb., and upwards.



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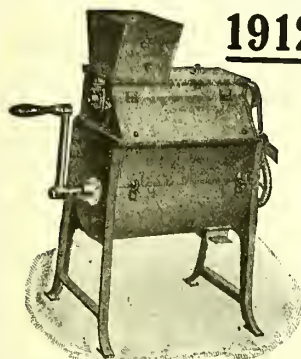
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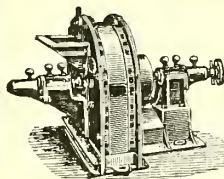
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SINGLE BAGS of following 3 sizes sent CARRIAGE PAID to any place in the United Kingdom, so that there is no stock to hold.

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A wide band, sticky on both sides unrolling like a blind. 6s. 6d. gross, post paid on receipt of P.O.

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TANGLEFOOT SEALED STICKY FLY PAPER.

SIR JAMES CRICHTON BROWNE, in his Presidential speech at the Annual Conference of the Sanitary Inspectors' Association on August 6th, said: "The Fly-plague in South Africa was markedly diminished wherever punctilious care in the prompt removal of all refuse from the vicinity of the camp was combined with a liberal use of



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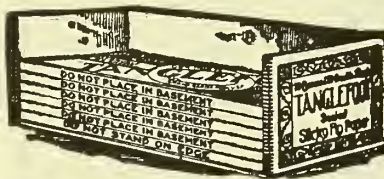
CHURCH STREET,
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LONDON, S.W.

**TANGLEFOOT
FLY PAPER."**

The Times, August 9, 1902.

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Per case of 500 Sheets, 15/-
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Dear Sir,
We have a few Rats at our Infectious Hospital which we are very anxious to get rid of, and my Council have been informed that you are the Agent for a good remedy. I shall therefore be glad if you will forward me a small supply at once, in order that the same may be given a trial.

Yours faithfully, R. WILSON.

In reply to this I sent a 1/- tin praising "RODINE" RAT POISON to the skies, and adding that "I only devoutly wished that it would destroy the wretched Insurance Bill as successfully as it does the Rats."

Write for particulars of Sole Agency to
HARLEY, Chemist, PERTH, N.B.

FLY CATCHERS.

THE IMPROVED "TURNSTILE" FLY COIL.

6/6 per gross.

Excellent Sticky Fly Paper. Very effective. Clean and easily opened.

THE "KACH" FLY RIBBON.

2½ inches wide. 6/6 per gross.

Ribbon Sticky on both sides, contained in a small box, is very easily opened, clean and effective in use.

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5/- per gross.

The Old Favourite Fly Exterminator.

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A most successful Sticky Fly Paper.

CHEMICAL FLY PAPERS.

Printed with customer's own Advertisement

500 for 10/-	3,000 at 13/-
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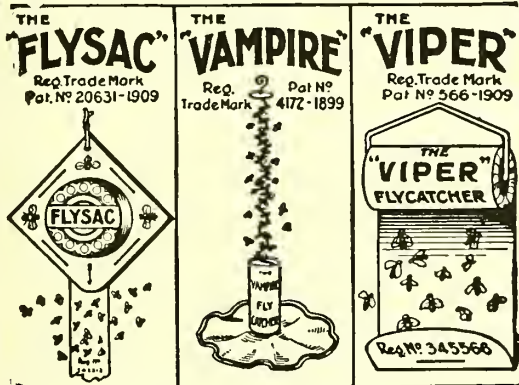
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By the use of our latest Back Pressure Filling Machines only half the usual quantity of Gas is used for the manufacture of the Highest quality Soda-water, either in Syphons or Bottles.

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are specially designed for
CHEMISTS, GROCERS, RESTAURATEURS,
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and can be used for filling Syphons, Codd's
Bottles, or Cork Bottles.

**OCCUPY LITTLE SPACE!
ARE READY FOR USE IMMEDIATELY!
REQUIRE NO FIXING!**

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Write for Catalogue.



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OF AERATED WATER PER DAY
—FROM £20.**

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Lowest Prices.

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VINUM AURANTII, B.P.) Prepared in strict accordance with the Formula of the British Pharmacopoeia. (Wholesale only.)
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Established
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STANDARDISED TO B.P. 1898.

When diluted in the proportion of one part to forty parts of water at 60° temperature, they faithfully represent the Medicated Waters of the British Pharmacopoeia. They are always of uniform strength, and will keep good any length of time in any climate.

Aqua Amygd. Amar. Conc. (U.S.)	4/- per lb.	Aqua Cassia Conc. ...	4/- per lb.	Aqua. Menth. Virid. Conc. ...	4/- per lb.
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The above may be had in ½-lb., ¼-lb., or 1 lb. Bottles and upwards through most of the Wholesale Drug Houses.
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"4 MEDALS" BRAND.

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(In Powder Form).

No Cooking. Prepared instantly by stirring
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The first thought of experienced dietitians when selecting a palatable, nourishing, easily assimilated food.

¶ The wholesome, invigorating principles of pure milk and choice malted grain, so prepared as to be properly assimilated in the feeblest conditions.

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GOOD! IT'S MASON'S The Drink for the Masses

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Prompt Sales
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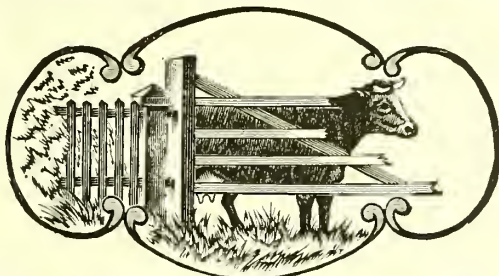
You stock "Wincarnis"—our advertising sells it for you. There is an enormous and ever-increasing demand for "Wincarnis" because it is a good article backed up by a powerful advertising campaign. Don't risk losing sales through being out of stock. Glance at your stock now.

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STERILE.

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THE POPULAR AND PRACTICAL SUBSTITUTE FOR MOTHERS' MILK.

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What nearly every Chemist to-day feels *most in need of* IS **INCREASED RETURNS.** His profits are not what they were, his expenses constantly tend upwards, and competition was never so keen.

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We are prepared to show you how we will
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NOTHING!**

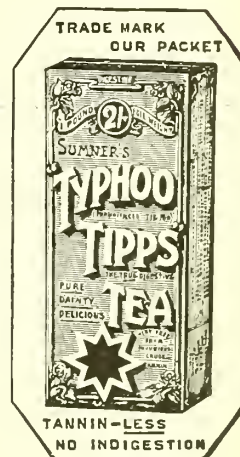
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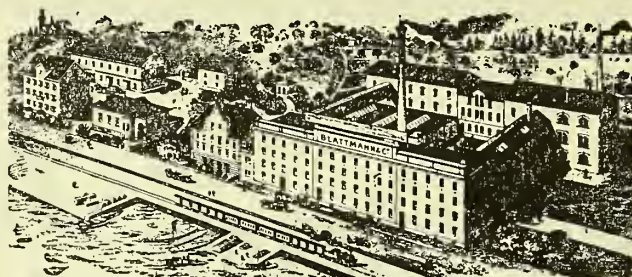
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LECITHIN ALBUMEN, & LECITHIN MILK In powder form for the manufacture of Tablets, Pastilles, Foods, etc.

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8% P_2O_5 , 20% Bromine.

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8% P_2O_5 , 20% Iodine.

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Contains a Valuable Trade Suggestion each Month.

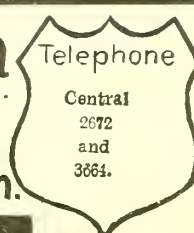
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Our COD LIVER OIL EMULSION with Hypophosphites is so exceptionally good (without separating), and is of such a palatable flavour that it always finds a ready sale with the public. It has been for years a special feature of our trade, and orders should be placed with us *now* to ensure prompt delivery when the Emulsion is required.

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For DISEASES of the KIDNEYS, GRAVEL, GOUT, RHEUMATISM,
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VICHY-ETAT PASTILLES

Two or three Pastilles after each meal facilitate digestion.

CAUTION.—Each bottle from the STATE SPRINGS bears a neck label with the word "VICHY-ETAT" and the name of the **SOLE AGENTS** :—

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*Vittel Spa has many
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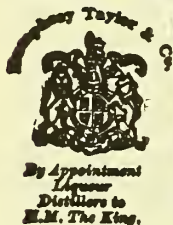
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10,000,000 BOTTLES SOLD ANNUALLY.

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WINE OF HEALTH

Is a delicate, dry, appetising wine, containing the organic phosphates of lecithin-ovo. It is a pleasant and scientific form in which to take all that is most valuable in the old-fashioned beverage, a raw egg beaten up in wine. Junora creates appetite, enriches the blood and strengthens the nerves.

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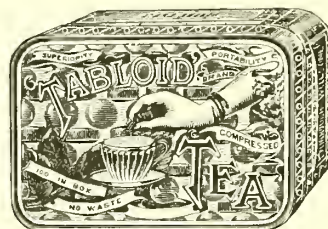
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An example of successful tea-blending.
Exceptionally choice. Delicious
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For Customers who
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Supplied in tins of 100, at 12/0, and 200 at
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'Tabloid' Tea is also issued in tins of 100
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Prices subject.



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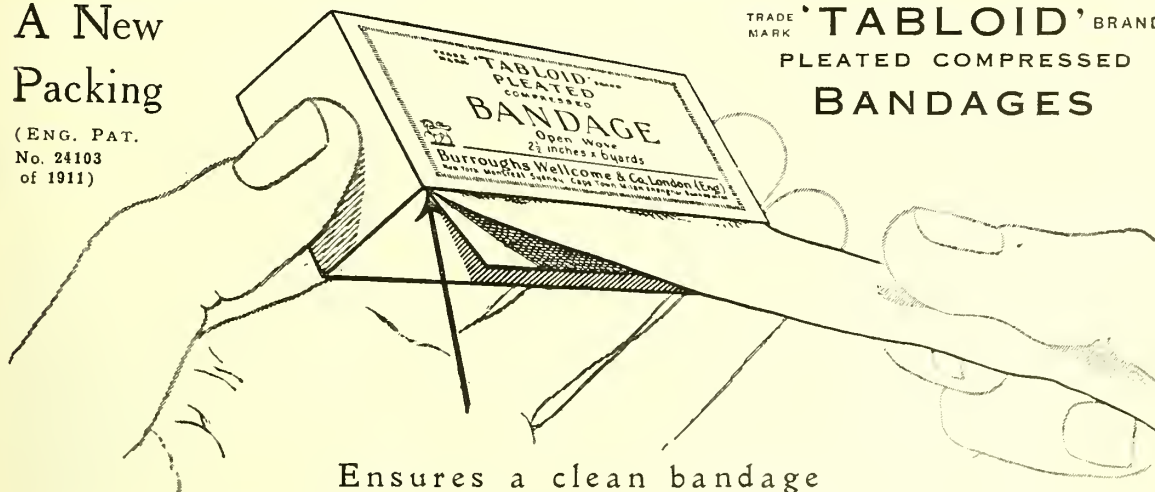
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TRADE
MARK 'TABLOID' BRAND
PLEATED COMPRESSED
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Ensures a clean bandage
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This New Packing reduces risk of contamination to a minimum. The Bandage unfolds and glides through the slot. It can be used in the same way as a roller bandage with the advantage that every inch is clean and uncontaminated.

Pleated Compressed Bandages, Dressings and Sanitary Towels were originated
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SUBLAMIN (MERCURIC SULPHATE ETHYLENE-DIAMINE). Non-Irritant. Non-Corrosive. Substitute for sublimate with greater penetrating power.

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The *Lancet* describes it as

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The *British Medical Journal* says:

"Benger's Food has by its excellence established a reputation of its own."

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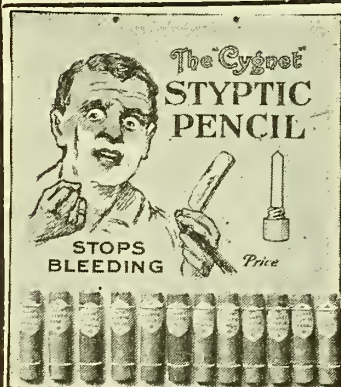
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BENGERS' FOOD, Ltd., MANCHESTER,
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CYGNET STYPTIC PENCILS. In smart boxwood cases on multi-coloured card of 1 dozen.
4½d. Retail ... 2/6 dozen.

INSECT PENCILS always sell freely at this season in return for a good show.



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DIARY PREPARATION.

Subscribers to THE CHEMIST AND DRUGGIST in business in far-off parts of the world like to have their annual *Chemists' and Druggists' Diary* to begin the New Year with. In order to ensure this the *Diary* must be put to press at the end of October and despatched by the mails leaving London early in November. The Publisher desires to remind advertisers, therefore, that the preparation for

The Chemists' and Druggists' Diary, 1913, has already begun, and he would appreciate their co-operation and assistance in sending in copy and instructions for their announcements now.

SUMMARY OF THIS ISSUE.

The more notable items only are dealt with.

News of the Week.

The possibility of a Government amendment of the Irish Pharmacy Act is dealt with on p. 49.

Regulations regarding metallic contamination of tinned food have been issued in France (p. 36).

The minimum standard of milk-solids other than milk-fat in separated milk has been fixed at 8.7 per cent. (p. 34).

A new Pharmacy Bill has been introduced in Italy. We take the opportunity of tracing the origin of the present system of limiting pharmacies (p. 39).

Five-pound fines has been inflicted in cases where employers refused to make their contributions under the National Insurance Act (p. 42).

An investigation has taken place in Melbourne, Victoria, into alleged irregularities in connection with the examinations of the Pharmacy Board (p. 37).

The course of the medical tactics in regard to the National Insurance Act is very erratic. We explain on p. 49 how the question of medical benefit is being affected by the opposition of the doctors.

Articles and Communications.

The results of an investigation of sassy bark are given on p. 53.

An account of La Bourboule hydropathic establishment is given on p. 36.

We summarise the regulations in Australia regarding the compulsory dipping of sheep (p. 38).

The sale in Ireland of soluble oxalates is regulated by the Sale of Poisons (Ireland) Act and the Poisons and Pharmacy Act (p. 48).

Tschirch's monumental work on Pharmacognosy, which has been completed to the end of the second volume, is reviewed on p. 44.

The Report of the Departmental Committee on Sight-tests is dealt with on p. 50, particularly in regard to the question of colour-blindness.

The grinding and polishing of mirrors for reflecting telescopes is described on p. 55. Mr. Laurence's new book on Visual Optics is also reviewed.

The functions of the Board of Health, which came into existence in 1848, are explained up to the time when they became merged into the Local Government Board (p. 51).

Illustrations are given on p. 45 of a collection of old pharmacy pots in the Versailles Hospital. We also give a list of the references in the *C. & D.* to these interesting objects.

"Pharmaceutical Camerist" deals with a new film-stripping method and a bromide-toning process. He has also gathered from the photographic papers some remarks of interest to chemists (p. 56).

The adulteration of American turpentine with "wood" or "stump" turpentine is giving much trouble to importers and analysts. Mr. Parry shows that the iodine-value can be employed for detecting the admixture (p. 52).

The correspondence columns this week deal with a great variety of subjects. Sir Edward Evans replies to an inquiry regarding the adulteration of copaiba with African balsam. The export of pitch-blend from Austria, letters of credit, yellow santonin, National Insurance dispensing, and studying for the Fairchild Scholarship are other subjects (p. 61).

"Xrayser II." agrees that the outlook of pharmacy is not so dark as it was a few years ago. He would be prepared to give a vote to a woman council-candidate should one come forward. The Birmingham analyst's remarks on soda-water remind "Xrayser II." of the origin of that beverage, and the stormy weather has brought to mind the fact that belemnites or thunderbolts were formerly credited with medicinal properties (p. 47).

Trade and Market Matters.

Quicksilver and mercurials are lower. Opium is dearer on American and Japanese buying, while morphine is firmer. Potassium and sodium prussiates are higher. Grains of paradise, cevadilla, valerian, and turpentine are cheaper. The resumed drug-auctions were heavy in view of accumulations (p. 57).

B

ENGLISH AND WELSH NEWS.

When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.

Brevities.

The Local Government Board has issued an Order under Section 130 of the Public Health Act, 1875, rendering general in England and Wales the notification of acute poliomyelitis and cerebro-spinal fever.

Mr. A. Collins, chemist and druggist, Corn Market, Pontefract, while motoring on August 15, collided with a tramcar in endeavouring to avoid a dog. Mrs. Collins, who accompanied her husband, sustained two broken ribs. She is now progressing well towards recovery.

Chemists' shops in Carlisle, writes a *C. & D.* contributor, are looking fresh and up to date. Mr. Anthony Nichol, Ph.C., Botchergate, has a large placard in his window, by means of which he emphasises the nature of his qualification. He also adds that his assistant is qualified by examination.

Mr. Percy Nowell, chemist and druggist, Harlesden, writes to the "*British Medical Journal*" a letter regarding the repetition of prescriptions. He takes the view that a limit should be placed upon the number of times a patient should obtain a prescription dispensed, and that doctors do their own dispensing in order to control "this great abuse of their prescriptions."

The silver medal offered by Messrs. Potter & Clarke, Ltd., for the best collection of medicinal plants gathered in any part of the United Kingdom has been awarded to Mr. M. De Voy, Edgware Road, London, W. The bronze medal was taken by Mr. S. Tryner, East Kirkby, and certificates of merit have been granted to Mr. J. Hammond, Pontygwaith, Glam., and Mr. E. Duckworth, Great Harwood.

By the "Sale of Milk Regulations, 1912," of June 29, the Board of Agriculture and Fisheries fixes a minimum standard in England and Wales for skimmed or separated milk (not being condensed milk) of milk solids other than milk-fat at 8.7 per cent., instead of 9.0 per cent. of total milk solids as hitherto. The object of the new regulation is to obviate the difficulties arising in cases where imperfectly skimmed milk has been watered, but the total solids are still over 9 per cent.

Sale of Food and Drugs Acts.

In Woolwich last year none of the thirty-two drug-samples analysed were adulterated.

The medical officer for Greenwich (Dr. E. G. Annis) in his annual report for the past year, which has just been issued, states that during the year thirty-nine drug-samples were examined. All were genuine.

The Hackney medical officer during 1911 reported upon the following samples: Olive oil (15), camphorated oil (9), arrowroot (6), paregoric (6), and liquorice-powder (3). All were genuine except a camphorated-oil sample, which was 15.9 per cent. deficient in camphor.

In Wandsworth during the past year one sample each of crushed linseed, cod-liver oil, eucalyptus oil, Bland's pills, liquorice-powder, orange-quinine wine, two of Gregory's powder, and two prescriptions were submitted for analysis. The only sample reported against was a prescription in which magnesium carbonate had been substituted for magnesium oxide. No action was taken, as the adulteration was not considered a serious one.

The Commission of the Peace.

Mr. Samuel Rideal, D.Sc., F.I.C., The Chalet, Elstead, is included among the newly appointed magistrates for the County of Surrey.

Mr. Joseph Gant, chemist and druggist, is one of the newly appointed Justices on the Commission of the Peace for Northants. Mr. Gant, who is a native of Spilsby, Lincs, has been in business at Raunds, near Wellingborough, since 1880. He has served on the Parish Council, the Urban Council (of which he was elected Chairman in 1908), and the Board of Guardians.

Contracts.

Hyde Town Council.—Mr. F. Swindells, chemist, of Newtown Street, Hyde, for supply of drugs to the hospital.

Government Contracts.—*Admiralty*: Parke, Davis & Co., for compressed drugs; Anglo-American Oil Co., for mineral sperm oil. *War Office*: Grindley & Co., Ltd., for creosote; May & Baker, Ltd., for methylated spirit; and C. Price & Co., for sperm oil—all running contracts. *India Office*: Gas Light and Coke Co., for carbolic acid; Howards & Sons, Ltd., and Burgoyne, Burbidges & Co., for chemicals; Duncan, Flockhart & Co., for chloroform; Baiss Bros. & Stevenson, Ltd., for drugs; Price's Patent Candle Co., Ltd., for glycerin; Arnold & Sons and J. Weiss & Son, for instruments; May & Baker, Ltd., for oleum anethi, etc.; G. Atkinson & Co., for potassium iodide; Darton Gibbs Co., Oldbury, for boric wool. *Crown Agents for the Colonies*: Burgoyne, Burbidges & Co. and May & Baker, Ltd., for drugs and chemicals.

From Various Courts.

At Bridlington on August 17, Leonard Morris Verney, of Bridlington, was fined 5*l.*, including costs, for having stated falsely in a law court that he was a duly qualified member of the Royal College of Veterinary Surgeons. Defendant is a veterinary surgeon's assistant.

At the South-West London Police Court, Wallace Clifford, Oxford graduate and a victim of the morphine habit, was charged with stealing three books from Boots, Ltd., Putney, and W. H. Smith & Son, Clapham Junction Station. Accused was discharged in care of a lady friend.

William Henry Jenkins (17), of Finsbury, took potassium cyanide with suicidal intent, but prompt treatment by a policeman with an emetic of salt and water saved his life. The Old Street Magistrate, before whom Jenkins was charged with attempted suicide, allowed him to be released in his own recognisances.

At the West Bromwich Quarter Sessions on August 14, John Fisher (24) and Robert Arnold (45), hawkers, of no fixed abode, were indicted for obtaining 1*s.* by false pretences from Thomas Adams. Mr. C. Kemsey-Bourne, pharmacist, 255 High Street, West Bromwich, deposed that a bottle of liquid sold as "whisky" for 1*s.* consisted of water coloured with burnt sugar. Fisher, who was wanted for a similar offence in another town, was sentenced to six months' hard labour. Arnold was discharged.

The Cullompton Magistrates on August 12 committed Charles Place for trial on a charge of supplying a compound decoction to Florence Philippa Ley for an unlawful purpose (*C. & D.*, August 17, index folio 275). Bail was allowed accused in 50*l.*, with two further sureties for like amounts. Mr. Thomas Tickle, F.I.C., analyst for Exeter, deposed that the compound decoction of aloes was the most important ingredient in the mixture. There was also a vegetable powder present, but he was not in a position to name it. Accused, in his evidence, said he was a chemist certified by the New South Wales Pharmacy Board. He had been in business at various places in England, the last being at Cullompton, where he was now in lodgings. He denied ever supplying any woman with noxious drugs. When he received Mrs. Ley's letter he thought it was not a genuine case. If Mrs. Ley had taken the whole of the medicine he was confident it would not have done her the slightest harm. He had no drugs on his premises, so he went to Mr. Foster, chemist, and purchased an ounce of decoction of aloes. Witness added to that 20 grains of bitter apple. He had hesitated between getting the stuff at Mr. Foster's and giving Mrs. Ley in charge, but he had concluded that it would be better to have the laugh at her and get the half-guinea. He was not registered as a chemist in England.

At the Hackney Coroner's Court on August 21, during the inquest on a schoolboy who cut his head and died, it was stated that deceased was first attended by a chemist. The following colloquy took place between the Coroner (Dr. W. Wynn Westcott) and Mr. Herbert Sampson, assistant to Mr. W. Wells, chemist and druggist, 66 Chatsworth

Road, London, N.E., after this witness had said he had no recollection of binding up the child's head:

The Coroner: You have so many cut heads to attend to?—Witness: Yes.

The Coroner: Which a doctor ought to attend, not a chemist's assistant?—Witness: No; small cuts a doctor would not attend to. Mothers bring their children round, and it is only a matter of a little lint and plaster.

The Coroner: And the chemist is never there, I suppose?—Witness: Oh, yes, he is always there, but I have been identified as the one that did it. I should not attend to serious cuts; I should send them along to the doctor.

The Coroner: And it rests with the chemist as to whether it is serious or not. You cannot remember this case any way, because you attend so many?—Witness: Yes.

The Coroner: That is why the doctors of Haekney are so poor, I suppose? The chemists do it all.—Witness: We send anything serious to the doctor, but at times there is no time to do even that.

The Coroner: I will leave it at that.
The inquest then proceeded.

Cricket.

A match between the British Medical Association C.C. and the members of Burroughs Wellcome & Co.'s staff was played at Dartford on August 17. The scores were: B.M.A. 61, and B. W. & Co. 112.

IRISH NEWS.

When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.

Brevities.

Mr. W. A. Frizell, Ph.C., Portstewart, co. Londonderry, has been elected captain of the local golf club.

Mr. Robert Hastings, J.P., registered druggist, Newcastle, acted as one of the officials at the annual sports at Newcastle last week.

At the Clonmel Agricultural Show Mr. J. W. Kissane, of Kissane & Co., veterinary chemists, Tipperary, sold a grey mare for 75*l*. He had only bought the animal recently.

Sir William Baxter, D.L., Coleraine, President of the Pharmaceutical Society of Ireland, is making a good recovery from his illness. The Sustentation Fund Committee of the General Assembly of the Irish Presbyterian Church, of which he is a member, has forwarded him a resolution of sympathy.

SCOTTISH NEWS.

When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.

Edinburgh.

A proposal is on foot to inaugurate a Bowling League in the wholesale drug-trade.

One or two prescriptions of Walford Bodie's have been encountered locally within the last few days. One recipe calls for methyl. chlorof., lin. camph., and ol. caryophyll., presumably for rheumatism.

Mr. Davidson, Tollcross, is making a big display of shaving-sticks at present, and one of the inducements placed before possible purchasers is that by spending 4*½d*. on a stick they are helping to support British industries.

A bowling match took place at Victoria Park, Leith, on August 12 between teams drawn from the staffs of Messrs. J. F. Macfarlan & Co. and Messrs. Harkness, Beaumont & Co., the former team (Messrs. W. Walker, A. Mein, J. H. Fraser, and J. D. Hamilton, skip) winning by eleven shots to nine. The Harkness Beaumont team (Messrs. G. A. Winton, J. W. Forsyth, J. D. Keddie, and J. Hardy, skip) won the return match, played at Regent Green, Edinburgh, on August 15, by eighteen to eight shots.

Medical Benefit in the Highlands.

The Highlands and Islands Committee appointed by the Treasury in connection with the Insurance Commissioners to inquire into the adequacy of the medical service in the Highlands, met in the Town Council

Chamber, Inverness, on August 19, to take evidence. Sir John A. Dewar, M.P., presided, and the other members present were the Marchioness of Tullibardine, Mr. J. Cullen Grierson, Mr. Andrew Lindsay, Dr. MacVail, Dr. Miller, Dr. Leslie Mackenzie, and Dr. J. L. Robertson, H.M.C.I.S., and Mr. M. Beaton (Secretary). Evidence was given by the medical officers of health for Inverness-shire and Ross and Cromarty, and by medical practitioners from certain of the more sparsely populated parishes in the east of Inverness-shire and Ross-shire. The inability of many people in the poorer parts to pay fees in any way adequate for the expenditure of time and money involved in providing even very modified medical attendance was described. The supply of doctors, nurses, and hospitals, and means of communication by telephone and otherwise, and travelling facilities, the position of the parish medical officer as regards income, residence, and security of tenure, were among the subjects discussed as bearing upon the adequacy of the existing medical service. The committee is to take evidence at Thurso on August 23, and on the following day it will proceed to Kirkwall, and later to Lerwick.

FRENCH NEWS.

(From the "C. & D." Paris Correspondent.)

SERUMS AND PHYSICIANS.—Whether the law of 1895 permits French medical practitioners to experiment with such serums as they have themselves discovered is a question which was raised some months ago. The attention of the Academy of Medicine was called to the ambiguous situation in which such doctors are placed, and this body has accordingly nominated a special committee to study the somewhat difficult question. The members of the committee are MM. Chantemesse, Landouzy, Marty, Netter, and Roux.

IODINE FUMIGATION.—Dr. Louge, of Marseilles, has devised a somewhat ingenious process for producing iodine vapours for use as a local antiseptic. He fixes a wad of cotton-wool in forceps and plunges it into an iodoform solution. This is set on fire, and a large quantity of vapour is produced, which can be directed into the cavity or wound. He has by this method obtained some hopeful results in the case of cancers which cannot be operated upon. If the vapour is collected minute iodine crystals can be detected.

VACCINATION AGAINST CHOLERA.—According to the "Matin" newspaper, a new vaccine against Asiatic cholera has been discovered by MM. Conor, Nicolle, and Conseil, of the Pasteur Institute at Tunis. Injections of comma bacilli, it is stated, restore richness to the blood, and thus render the vaccinated person immune. The three doctors in question first vaccinated themselves and then absorbed cholera bacilli through the digestive organs. Dr. Roux, when reporting the facts to the Academy of Sciences, said he considered the experiments interesting and worthy of being investigated; at present he did not necessarily class them as conclusive.

SYPHON-HEADS.—Last summer Dr. Barillé, a retired army pharmacist, read a paper at the Academy of Medicine here on the danger of employing certain alloys for the head of siphons. He again referred to this subject at a recent meeting, on this occasion dealing particularly with aluminium. He pointed out that since the substitution of this metal for lead or tin had been proposed its grave defects had been pointed out by Mr. O. Taylor, and also by Heyn and Bauer. Aluminium is affected not only by carbonic acid under pressure, but even by drinking-water. Dr. Barillé proposed that where an inexpensive but hygienic article is required the aluminium head should be made with a thin interior lining of china or earthenware.

RADIOACTIVE MINERAL WATERS.—"Every self-respecting mineral water proclaims itself radioactive nowadays," remarks M. Houlléviqne, and this pretension seems to some extent justified. The researches of M. Charles Moureu, Professor of Chemical Pharmacy at the Paris Superior School of Pharmacy, show that the waters of

Ax-les-Thermes, Bourbon Lancy, and Plombières abound in the precious "emanation"; while "the Célestin's Spring at Vichy" is equivalent to 3 milligrams of bromide of radium. M. Houlléviqne cites the properties of a spring of which the analysis failed to reveal any such qualities, and he was so struck by the fact that he largely advertised his water as the "only non-radioactive water in the region." The posters were large and convincing; the suffering read, came, and were (in some cases at any rate) healed.

A QUESTION OF PREROGATIVE.—The Municipal Council of Amiens decided as far back as January 1907 to create a Municipal Laboratory for chemical and bacteriological analyses of beverages, ailments, and agricultural produce, and to place its services at the disposal of the public at a fixed tariff. The Pharmacists' Association of the Department of the Somme laid before the Conseil d'Etat the question of the legality of this creation, seeing that "the number of private laboratories at Amiens is already sufficient." When the Conseil recently met to consider the question, the Government commissary pleaded that the Amiens Municipal Council was simply bringing into force the Anti-Adulteration Act of 1905. As to the bacteriological analyses, he doubted if certain of the operations proposed, such as the diagnosis of anthrax, glanders, and tetanus, by the inoculation of animals, came within the province of the pharmacist. The Conseil adopted his conclusions, and dismissed the pharmacists' appeal.

HYGIENE OF TINNED FOODS.—The decree signed by M. Fallières on April 15 last and published in the "Journal Officiel," interests chemists and manufacturers of canned goods. If brass or copper, zinc or galvanised iron be used for receptacles, these metals must not be in direct contact with the beverage or food, unless the contents be of a solid nature, such as cocoa. Metal containing more than 10 per cent. of lead or $\frac{1}{100000}$ th of arsenic, or solder containing over 5 per cent. of lead or $\frac{1}{100000}$ th of arsenic, must not be brought into contact with articles of food. The use of boxes with leaden joints or stoppers, or coated inside with varnish containing poisonous metals, and the employment of wall-paper containing arsenic, and of written or printed paper, are likewise forbidden, if contact with the contents is possible. Finally, a long list of authorised colouring-matters is given. For instance, caramel may be used for beer and spirits, cochineal and vegetable matters (with the exception of gamboge and *Aconitum Napellus*) for most liquids and solids; and a list of twenty-one coal-tar products, which will be tolerated for the colouring of liqueurs, preserved fruits and sweets, eggs and cheese-rind, and sausage-skins, closes the document. Copper sulphate in the proportion of 100 mg. of copper per kilogramme may be used for colouring canned vegetables.

GENUINE MINERAL WATERS.—Senator Cazeneuve, Professor at the Lyons Mixed Faculty of Medicine and Pharmacy, publishes in the "Annales des Falsifications" an article on mineral waters. The idea of insisting on such waters being definitely bottled at the site of the spring offers, he states, no real guarantee, unless a *gendarme* or inspector be constantly on duty at each spring to supervise such operation. The best proof, he thinks, would be to compel dealers to deposit a chemical analysis of their spring at the laboratory of the Minister of Agriculture—the establishment which centralises the analytical work rendered necessary by the 1905 (Anti-Adulteration) Act. One of the formalities exacted before permission is given to bottle and sell a French mineral water is the presentation of samples to the Academy of Medicine, together with a chemical analysis, the latter subject to verification by the Academy. Nothing, therefore, would be easier than to insist on duplicates of these samples and analytical details being forwarded to the Central Laboratory already mentioned. For the last twenty years the Academy of Medicine has allowed the importation of Spanish purgative mineral waters (Carabana, Villacabras, Rubinat, Llorach, etc.) without insisting on their being bottled at the spring. These waters are principally remarkable as containing Glauber's salts. They are, in France, the competitors of the German waters, and are mostly bottled by companies whose offices and shareholders are in France.

The water is collected in reservoirs, put into casks, and forwarded direct to the French works, where it is filtered and bottled. It would be an easy matter, remarks Dr. Cazeneuve, to compare the quantity bottled with the quantity passed through the Customs, were such a precaution deemed necessary. In the case of sulphurous and ferruginous waters, on the contrary, bottling at the spring would be preferable; otherwise their therapeutical value would suffer. A water containing bicarbonate of soda is also preferably bottled at the spring, as it is desirable to secure the maximum of natural carbonic-acid gas.

The Hydros of the Auvergne.

II.—LA BOURBOULE.

LA BOURBOULE is the sister station to Mont Dore (*C. & D.*, January 27, p. 144)—sister in the geographical sense only (they are four miles apart). Its altitude is 1,000 feet less, and its waters are cited as "the most arsenical in the world." They contain 28 milligrammes of sodium arsenate per litre. The place struck me as being more town-like than Mont Dore; quite a number of large hotels have been built, yet living is anything but cheap. The same remark applies, it is true, to both places. In the heart of the mountains, and occupying an elevated position, the traders have literally to make money "while the sun shines." There are, as at Mont Dore, a score of doctors, mostly prosperous, and three pharmacies. MM. Caminade, Lafont, and Vedrine all report an excellent season, business being at its best, of course, during the present holiday month, when a considerable percentage of the 7,000 annual visitors arrive to swell the indigenous population of something over 2,000. Anæmia, skin-diseases, scrofula, etc., diabetes, rheumatism, and all maladies of the respiratory organs, throat, and nose, are here treated; one might almost go further and say that the diseases for which the local medical authorities do not consider a stay at La Bourboule decidedly advantageous are remarkably limited.

The importance of the British element seems sufficiently manifest in the organisation of two Anglican Church services every Sunday during the summer, and in one of the pharmacies I met an intelligent young pharmacist who was completing his winter season at Nice by a summer service at La Bourboule. He had, as a matter of fact, been recommended to follow a treatment for the respiratory organs, and had thus succeeded in carrying out the doctor's recommendations without interrupting his business career. He incidentally mentioned that the officials of the "Mineral Water Company," which runs the hydro-pathic establishment here, had most courteously offered him every facility, considering that as a pharmacist he had a right to gratuitous treatment. The admission of pharmacists at reduced terms exists, I am aware, at some (though not all) of these spas. The waters of the Choussy and Perrière springs are utilised not only in the Etablissement Thermal, but also at two other establishments, Mabrus and Choussy; the temperature is 60° C., and the hourly supply 7,000 gals. They are announced as the most radioactive of French waters (Plombières taking the second place). The Croizat water, used for drinking and bathing, comes from the Compissade spring; its temperature is 41° C., and it contains twice as much sodium chloride as the two already cited. The Clemence spring contains 6, and the Fenestre spring 8 mg. of arsenate; the former is strongly aerated. The Fenestre water is served for drinking-purposes on the spot only, and conveyed also to the Etablissement to be mixed with the Choussy and Perrière waters for baths. The local tariffs may be of interest: Buvettes (water-drinking bars): Thermes 12 francs, Choussy 10 francs, Mabru 8 francs, for the treatment of three weeks. Reductions are made for families of four, five, and six persons. A season ticket for twenty-five days costs from 4*l.* 8*s.* to 6*l.* from May to August; in September a reduced tariff is applied. The Choussy and Perrière waters are sold at 6*d.* a bottle at La Bourboule, and "digestive bonbons" are made with the salts.

AUSTRALASIAN NEWS.

"The Chemist and Druggist" is regularly supplied by order to all the members of nine Societies of Chemists in Australia and New Zealand, and to many other Chemists in business there.

The Commonwealth.

PROPRIETARY MEDICINES.—The question of the control of imported proprietary medicines in Australia is being investigated by the Select Committee on Patent Medicines in the British House of Commons. The "Chemist and Druggist of Australasia," referring to this, states that since the Commerce (Trade Descriptions) Act came into force the Customs Department has dealt with some thousands of medicines. The ordinary procedure is that when a medicine is suspected or comes under notice a sample is taken and submitted to the officials. If the label and the accompanying printed matter contain no exaggerated or unfounded claims the medicine is allowed to be imported. If any extravagant or unfounded claims are discovered the importer and maker are notified. If the case is not a bad one, the present parcel is admitted and a reasonable time is allowed for the required alteration to be made. Every month a large number of imported medicines are analysed to see (1) if they contain the drugs they are alleged to contain, and (2) if they contain any specified drugs, injurious or otherwise, that are not stated. If infants' powders, etc., contain morphine or other narcotics, the Department insists on the fact being stated. In the same way, if strychnine or other similar powerful drugs are contained in a medicine, the fact has to be stated, together with the proportion contained. In certain cases where the medicines are seen to be injurious or entirely worthless the importers have been notified that the goods will not be allowed to land, and that no further parcels will be admitted. Information is also given to the proprietors, and in most cases this has led to the cessation of the importation of the article. Medicines are constantly being submitted to the Department, and the work of the revision of the labels is going on vigorously. The result is that the importation of proprietary medicines is thoroughly under control, and it is hardly possible for a medicine making extravagant or unfounded claims to gain admittance to the Commonwealth through the ports. This does not prevent the manufacture in Australia of medicines and the making of extravagant claims for such medicines.

Victoria.

"RECORDED" DENTISTS.—The rights of this class are gradually being established. An appeal case has been heard by the Full Court of Victoria, which has decided that the decision of the Supreme Court in *Joske v. Strutt* did not allow Alexander Blitz to exhibit the words "Alexander Blitz, Painless Extractions, Antiseptic Surgeries," and other statements. The Police Magistrate had held that, though the words were not used in connection with the words "Recorded by the Dental Board" on the defendant's plate, the decision in *Joske v. Strutt* allowed him to use the words complained of. The Full Court referred this back to the Magistrate for rehearing, holding that the Magistrate had been wrong in following the decision in *Joske v. Strutt*.

EXAMINATION-PAPERS.—The Pharmacy Board of Victoria have been investigating the circumstances under which a duplicate proof of the papers to be set at the March examination was obtained by collusion between a messenger at the office of the Board and a junior at the printing office. The copy was sold for 3*l.* to one of the candidates who, however, failed in the examination, having been misled by the errors in the uncorrected proof. An independent inquiry into allegations of irregularities in connection with the examination was ordered. Mr. V. Tanner, P.M., who presided, has made his report, which is to the effect that all the specific charges of any importance have been disproved. At the examination of witnesses, which was conducted in private, it was alleged that favouritism had been shown towards Miss Murray, daughter of the Chief Secretary, and two other students. One of the principal witnesses examined gave the name of an informant who

was said to have made a serious statement. The informant was called, and flatly denied that he had made the statement. The examiners also gave evidence. They were the Rev. C. Hart, examiner in botany at the University; Dr. F. H. Cole, examiner in materia medica and a member of the Faculty of Medicine; and Dr. Avery, examiner in chemistry. They all stated that the identity of the candidates are unknown to them; they knew only the numbers. They further stated that the records made by Mr. Shillinglaw were correct, and that the marks which they had awarded were correctly set out. All the papers were produced, and they bore out the witnesses' statements. One of the most serious charges made was that a candidate had bought the examination-papers prior to the holding of the Practical Pharmacy examination in June 1911, and had made up certain pills and blisters beforehand, and substituted them during the course of the examination for those he had made in the examination-room. Mr. Tanner held that this allegation was not proved. The examiner satisfied him beyond doubt that the articles had not been substituted, as alleged. Exception was taken to the action of the Board in having the examination-papers printed by a private firm, but it was shown that the late Mr. Shiels, when Treasurer, had given orders that the work was no longer to be done at the Government Printing Office.

SOUTH AFRICAN NEWS.

(From "C. & D." Correspondents.)

"The Chemist and Druggist" is regularly supplied by order to all the members of the seven Societies and Associations of Chemists in British South Africa, as well as to other chemists in business there.

Cape Province.

THE CUSTOMS COMMISSIONER.—It is stated that Mr. Geo. Mayston, Commissioner of Customs for the Union, will resign presently, or as soon as a successor can be found. Mr. Mayston was Controller of Customs of Natal prior to the Union, but owing to the ill-health of Commissioner Honey the position was offered him and accepted, the business men of South Africa welcoming the change.

Rhodesia.

THE CUSTOMS CONVENTION.—The Bulawayo Chamber of Commerce has, states Reuter, adopted a resolution declaring that the abnormal cost of living is due to the existing tariff, and that the high transit charges from the coast constitute an important factor in retarding the progress of the country. The Chamber of Commerce therefore demands a reduction in railway rates, and is of opinion that it is in the interests of Rhodesia to withdraw from the Customs Convention rather than bear greater fiscal burdens.

Transvaal.

BUSINESS IN JOHANNESBURG. our correspondent writes, is at present rather quiet. Everybody is jubilant over the fine win of MacArthur in the Marathon race at Stockholm.

CHARGE OF THEFT.—Lionel Stott, aged twenty-six, chemist and druggist, was arrested on July 23 in Johannesburg on a charge of theft at Durban. The accused admitted to the Magistrate that he was the man required. He was removed to Durban.

BUSINESS CHANGES.—Mr. Cummings has purchased the business lately carried on by Mr. N. Drubin, chemist and druggist, at Van Brandis and Commissioner Street, Johannesburg. Mr. Drubin is opening a new pharmacy shortly at Vereeniging, Transvaal.

PERSONAL.—Mr. H. Wheildon (Lennons, Ltd., Johannesburg) was successful in winning the valuable trophy presented by Evans Sons Lescher & Webb, Ltd., in connection with the tennis tournament arranged by the Transvaal Chemists' Athletic Club. The final was played at the club's court, Bertrams, on Sunday, July 21, between H. Wheildon and Chas. Mills, who were left in the handicap out of an entry of about thirty.

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Reorganising Italian Pharmacy.

EVER since the creation of the present united kingdom of Italy the conditions under which the profession of pharmacy is exercised in that country have given rise to much controversy, and several attempts have been made in the course of the past fifty years to introduce a uniform system in the place of the numerous existing differences, due to the former political configuration of that classic country, which had been named "a geographical term." At the present moment even United Italy still recognises in matters pharmaceutical the legislation of former Governments, even the laws of the "Austrian tyrant" still obtain, and justice on their basis is meted out to Italian pharmacists to-day in the parts belonging to the former Veneto-Lombardian crown. In the territories which formerly constituted the Kingdom of Sardinia we find the privileged pharmacies created in accordance with a decree of the year 1696, to the number of 434, and 264 created in 1732. These businesses form the private property of the owner, who holds a monopoly of the sale of drugs in the place for which his predecessors obtained this privilege. Later, in 1839, a certain number of concessions were granted to open pharmacies in places in which such were urgently required. In Lombardy and Venice there exist still the old privileges granted prior to 1835, in which year the Austrian Government introduced the concession system, allowing a new pharmacy to be opened for every 5,000 inhabitants; this disposition still holds good. In the former Duchies of Parma and Modena, and in the Grand Duchy of Tuscany, the exercise of the profession was entirely free, and no restrictions were imposed on the opening or sale of pharmacies—the only parts in Italy in which "free trade" in pharmacy existed. In the Papal States, according to the regulations issued under Pope Clement XIV. in 1771, and renewed in 1836, the right to grant permission to open a new pharmacy was vested in the Congregation of Charity. To each pharmacy a population of 3,000 souls must be allowed, and in Rome no new pharmacy was allowed to be erected within 200 rods of the next nearest existing business. In the former kingdom of the Two Sicilies the Government permitted the opening of a new pharmacy if local requirements rendered this step advisable, and the distance to be kept between existing businesses was fixed according to the density of the population. These various regulations introduced by former Governments still fetter the exercise of pharmacy in those parts to which they originally applied, and the opening of a business in the province of Verona, of Turin, or of Rome may be objected to by a competitor on the ground of provisions in the ancient laws passed by Austria, Savoy, or the Papal States. "Free trade" in pharmacy versus the monopoly system formed the basis of all projects of reform, until in 1888 a law was passed permitting the opening of a new pharmacy on giving fifteen days' notice beforehand to the prefect of the province; another clause required the introduction by the Government within a period of five years following the passage of this law of a measure for the abolition of existing privileges and other restrictions in pharmacy, in order to establish the amounts to be paid in compensation to the holders of such privileges for the loss of their rights. The latter measure has never been presented, but the first portion of the law has given rise to grave confusion and conflicting views. It was generally interpreted to mean the introduction of "free trade" in pharmacy, and the immediate abolition of any restrictions in the exercise of the profession; but when protest was made by a pharmacist in one of the formerly "privileged" territories against the opening of a new business by a competitor, Italy's highest tribunals—the Courts of Cassation of Turin, Naples, Rome, and Palermo—maintained that the old laws are still in force. The court of Florence, however, consistently adopts the opposite view; and here we have the strange result, that while in those parts of formerly Austrian Italy belonging to the judicial district of the Court of Cassation in Turin the old Austrian laws are regarded as still in force, in the other parts of the same territory formerly subjected to exactly the same laws as the remainder, but now within the jurisdiction of the Court of Cassation of

Florence, those identical laws are considered to be null and void. On the other hand, numerous petitions are received by the King, either praying for permission to open a new pharmacy, or protesting against the creation of a new business by some neighbour of the newcomer who sees his business seriously imperilled by competition. Matters have reached such a pitch that the Government openly acknowledges its inability to enforce the laws, and has to leave it to those interested to make known their claims; in short, the administration breaks down as far as the pharmacy law is concerned.

The necessity of introducing some definite basis of legislation designed to put an end to such untenable conditions had become imperative; but owing to the lack of unity shown by the trade, and the difficulty of elaborating a law likely to meet with a fair amount of approval, political as well as professional, no project was presented by the Government until the year 1908. This law has since been submitted to two parliamentary commissions, and only now has it assumed definite shape, and is at present engaging the attention of the Italian Parliament. The system of "free trade" has been abandoned, and its place is to be taken by a limitation of the number of pharmacies in proportion to the population, the owner of each pharmacy being appointed by the Government by open competition, ownership to terminate at death. The existing privileged pharmacies will retain their full rights for a period of thirty years from the passage of this law, and during that time their owners, or heirs, will be at liberty to freely dispose of their businesses. Otherwise the number of pharmacies will be regulated on the following basis in proportion to the population: In places with over 40,000 souls, there shall not be more than one pharmacy for every 5,000 inhabitants; in smaller places the number of pharmacies is to be established by the provincial sanitary council, taking into consideration the local conditions; in some cases a certain distance may be required separating two pharmacies in smaller rural districts or towns. The owners of pharmacies opened before or after the passage of the law of 1888 will be allowed to retain and sell their businesses for a period of fifteen years following the passage of this law, otherwise the right to open a new pharmacy, or to assume possession of an existing business, will only be granted by the provincial authorities, by open competition among qualified pharmacists applying for this concession. The right of ownership is to last only during the lifetime of the concessionaire, or during the time that he is able to conduct the business. At his death, or surrender of this right, his successor will be compelled to take over the fittings and stock of the business from his predecessor's heirs; and if there arises any difficulty regarding the sum to be paid, the provincial commission appointed to adjudicate in the competition for concessions and consisting of the prefect, or his delegate, the provincial officer of health, one physician, one lawyer, one chemist, and two pharmacists—the last five persons being appointed annually by the provincial Board of Health—will decide upon the payment to be made. Interesting is the fact that recognised co-operative societies will be permitted to compete for a concession, which must be managed by a qualified pharmacist. Indeed, a co-operative society is to be given precedence in a competition over the son or widow (if a qualified pharmacist) of the former proprietor. Also a municipality may compete as such for ownership. One of the most violently attacked clauses of the Bill is that which introduces a virtual monopoly in the sale of remedies in favour of the pharmacists. Article 19 states that the sale of medicaments in single doses or put up as remedies is only permitted to pharmacists; under this description are also included compounded medicines and specialties placed on the market ready for sale to the public. Every preparation of this kind must bear on the labels the exact formula and amounts; the use of chemical formulas is forbidden. Transgressions are to be visited with a fine of not less than 20*l.*, in addition to impounding the product; and in the case of a repetition of the same offence the offender will be deprived of his right to conduct a pharmacy, or, in the case of a manufacturer, to further pursue his industry.

Whoever sells or distributes or causes to be sold medicinal preparations or specialties to which untruthful claims with

respect to their composition or to their alleged therapeutic virtues are advanced on the label or in the advertising matter attached will be liable to a fine not below 20%, and the product will be impounded.

For a second offence imprisonment up to three months is prescribed. The sanitary authorities are empowered to prohibit the sale of a product, even pending legal proceedings. In addition to these provisions, this Bill requires the publication by the Government of a new edition of the Pharmacopœia every five years, while every second year is to witness the publication of one tariff for the sale of medicines to the general public, and another for medicines supplied to the poor. Hospital pharmacies will not be allowed to sell medicines to the public, unless by special permission of the authorities. Each pharmacy is to be inspected annually, for which purpose two inspectors will be attached to the Board of Health, to which a new section will be added in the Chemical Laboratory. The necessary funds for the reorganisation of Italian pharmacy are to be raised by two forms of levies. In the first place, the successful concessionaire will be required to pay a lump sum for the right to manage his new business, and in addition an annual tax to cover the cost of inspection, etc. These taxes are graduated according to the population of the locality in which the pharmacy is situated, on the following basis:

	Concession Tax	Annual Tax
Towns with over 100,000 inhabitants, within the octroi limits	£160	£2
Towns with over 100,000 inhabitants, outside the octroi limits	£80	£1
Towns with 40,000 to 100,000 inhabitants, within the octroi limits	£80	16s.
Towns with 40,000 to 100,000 inhabitants, outside the octroi limits	£40	8s.
Towns with 15,000 to 40,000 inhabitants	...	8s.
Towns with 10,000 to 15,000 inhabitants	...	8s.
Towns with 10,000 to 5,000 inhabitants	...	4s. 10d.
Places with less than 5,000 inhabitants	...	4s.

The amounts thus exacted from the pharmacists will not only be employed to cover the costs of inspection, but at least one-quarter is to be set aside for the purpose of providing pensions for the widows and orphans of deceased owners of businesses or assistants, while a part is to be used for the purpose of assisting those pharmacists who are in business in sparsely populated districts and whose profits are consequently insufficient to afford an adequate living.

The Shops Act, 1912.

The following are brief particulars of recent local arrangements:

Arbroath.—The Town Council last week approved the recommendation of the Provost's Committee that the petition of the local pharmacists for a weekly half-holiday to be observed on Wednesday be granted. The hours of closing on other days were agreed to so far as they are consistent with the exemption regarding the sale of medicines and medical and surgical appliances.

Ballymena.—The six local chemists have advertised their intention of closing at 1 p.m. on Wednesdays. An assistant will be on duty from 7.30 to 8.30 p.m. for the supply of urgent medicines.

Boston.—The Town Council considered on August 14 a petition from eleven chemists and druggists for an order for closing at 7 p.m. on Mondays, Tuesdays, and Wednesdays, at 1 p.m. on Thursdays, and at 8 p.m. on Fridays, leaving Saturday closing optional. The memorial was supported by twenty-four other traders, but there was a counter-petition with 172 signatures. The Council decided not to make a general order, but to ask the chemists if they desired an order applicable to their trade only.

Burnley.—On August 15 a batch of shopkeepers was proceeded against for failing to notify their period of half-holiday in the prescribed form. No convictions were recorded, but the Magistrates said they wished it to be clearly understood that the Act must be complied with.

Swinton and Pendlebury.—Local chemists have unanimously decided in favour for a closing order for Wednesdays at 1 p.m. There was not a two-thirds majority for an order for closing on other days of the week, the voting being five in favour and three against.

ASSOCIATION AFFAIRS.

West Ham Chemists.—The members and friends of the West Ham Association of Pharmacists had a successful trip to Rochester on August 15. Before leaving Plaistow Station for Strood, *via* Gravesend, the members of the party were each presented by Dr. Lauzon-Brown with a guide to the city. Dr. Lauzon-Brown met the party on arrival at Strood, and when Rochester was reached the party proceeded to explore the city under the guidance of Messrs. Snelgrove and Soper. Among the points of interest visited were the Dickens Museum in the High Street, the Cathedral, and the Castle. At 6 p.m. tea was taken at the Tea Table Café in the High Street, and votes of thanks were given to the guides who had conducted the party.

Organisation Meetings.—A meeting of the Weymouth Pharmacists' Association was held at the Crown Hotel, Weymouth, on August 15, when Messrs. Cussons, Merrick, and Spier (of Dorchester) and Messrs. F. Hudson-Cox, W. Gregory, M. M. Woodward, and F. Hancock (Hon. Secretary) (of Weymouth) were present. Mr. F. Hudson-Cox was invited to take the chair. Mr. W. J. U. Woolcock attended, the subjects of discussion being the National Insurance Act and pharmaceutical organisation in Dorsetshire. The members of the Torquay Pharmacists' Association and their wives were invited by the President and Mrs. Taylor to meet Mr. and Mrs. Woolcock at the Northcote Hall, Torquay, on August 14. The company included Mr. and Mrs. Quant, Mr. and Mrs. March, Mr. and Mrs. Cutmore, Mr. and Mrs. Burgoyne, Mr. and Mrs. Waymouth, Mr. and Mrs. Smollett, Messrs. H. F. Bourne, R. Horner, J. Newlyn, T. W. Dunsford, J. Swaffin, J. W. Cocks, and A. J. Venham (Hon. Secretary). The opportunity was utilised for a conference with the Local Associations Officer on the National Insurance Act and on local organisation of pharmacists.

Swansea Chemists.—A largely attended meeting of the chemists of Swansea and district was held at the Cameron Hotel, Swansea, on August 15, when Mr. Neathercoat, the Chairman of the Local Associations Committee, gave an address on the National Insurance Act as it relates to chemists. Mr. Evan Jones, of Llanelly, was elected to the chair. Mr. Neathercoat then explained the position of chemists in the National Health Insurance scheme, and at the close of the address the Chairman invited questions. Mr. Rees (the President of the Association) asked as to the position of limited companies under the Act; Mr. Dryden, with reference to the tariff. Mr. Arnold suggested that all the prescriptions be written out in triplicate, one portion to be kept by the doctor, one by the chemist, and one sent to the local committee. Mr. Morris (Gowerston) thought there would be friction caused by the patient wanting a copy of the prescription for another person who perhaps suffered from a similar complaint. Mr. Isaac (Neath), Mr. J. T. Davies, Mr. Richards, Mr. Griff T. David, Mr. Havard, Mr. Saunders, Mr. Sivertsen, and Mr. Rees (Skewen) also asked questions, which, our reporter states, Mr. Neathercoat "dealt with in a most satisfactory manner."



[Photo. Cleworth.]

MR. R. A. ROBINSON INSPECTING ONE OF THE SCOTS GUARDS OUTSIDE HOLYROOD PALACE.

BIRTHS.

HANBURY.—At "The Gables," Forty Hill, Enfield, on August 19, the wife of F. Capel Hanbury, Ph.C., of a daughter.

MURPHY.—At The Modern Pharmacy, Mitchelstown, on August 11, the wife of William Murphy, Ph.C., of a son.

MARRIAGES.

BRATLEY—SCOTT.—At Burghwallis Parish Church, on August 15, Arthur Larder Bratley, chemist and druggist, eldest son of Mr. Wm. Bratley, chemist and druggist, Mayor's Walk, Pontefract, to Lucy Jane, youngest daughter of the late Mr. G. W. Scott and of Mrs. Scott, of Skellow Mill, near Doncaster.

GORDON—PROUDFOOT.—At the Carlton Hotel, Edinburgh, on August 5, by the Rev. John Wallace, M.A., Tron Parish Church, W. Henry Gordon, Ph.C. (Ireland) and chemist and druggist (G.B.), French Hospital, London, to Janet, elder daughter of Mr. John Proudfoot, 20 Gardners Crescent, Edinburgh.

REES—SNOW.—At St. Peter's, Birkenhead, on August 21, by the Rev. Charles Dodge, Ernest William Rees to Margaret Mary, only daughter of William Snow, chemist and druggist, Birkenhead.

DEATHS.

COHEN.—At Johannesburg, on July 21, Mr. A. Cohen, chemist and druggist. Mr. Cohen, who was one of the early members of the Pharmaceutical Society of the Transvaal, died after a few days' illness from pneumonia.

DUTTON.—At The Meadows, Bathampton, on August 19, Mr. Charles Holland Dutton, chemist and druggist, aged eighty. Mr. Dutton succeeded his father in business at 25 Milsom Street, Bath, in the 'fifties, disposing of it thirty years later to the late Mr. J. B. Merrikan. Mr. Dutton was one of the pioneers of the Volunteer movement, joining the 1st Bath Company in 1859.

GRIFFITH.—At Highgate, on August 8, Mr. John Griffith, Parkstone, Dorset, aged sixty-one.

HERBERT.—On August 9, Mr. William Herbert, chemist and druggist, 355 Staines Road, Hounslow Heath, aged seventy-five. Mr. Herbert passed the Modified examination in May 1869.

KERSE.—At Johannesburg, South Africa, on August 8, Mr. John Tulip Kerse, aged thirty-three, son of Mr. Wm.



Mr. J. T. KERSE.

Kerse, Treasurer of Newcastle-on-Tyne Pharmacists' Association, aged thirty-three. Mr. Kerse entered the warehouse of John Ismay & Sons in 1896, leaving there two years later to be apprenticed with Mr. R. W. Maillard, chemist and druggist, Felling-on-Tyne. He returned to Ismay's, joining the representative staff, but left again in 1909 to join Aerators, Ltd., as a traveller. After a while he was sent out to South Africa to open up new ground. Mr. Kerse possessed a

fine alto voice, and sang in the Cathedral choir at Newcastle-on-Tyne both as a boy and afterwards.

JENKINS.—On August 17, suddenly, after a paralytic seizure, Mr. Thomas Jenkins, chemist and druggist, 142

High Street, Portmadoc, aged sixty-one. Mr. Jenkins was a native of Glandovey. He was apprenticed at Aberystwyth, and started in business at Portmadoc thirty-five years ago. He leaves a wife and six children.

JONES.—On the Fresnay Glacier, Switzerland, on August 15, Professor Humphrey Owen Jones, F.R.S., demonstrator to the Jacksonian Professor of Experimental Philosophy at Cambridge, together with his wife. Mr. Jones and his bride were spending their honeymoon in the Alps, and were killed by a fall while climbing the Aiguille de Péteret. Mr. Jones was born in 1878, and educated at the University College of Wales and at Clare College. He took his B.Sc. degree in 1897, M.A. in 1903, D.Sc. in 1904. His special subject was stereochemistry. In conjunction with Sir James Dewar he had written on iron and metal carbonyls. He was appointed on the Commission which has been inquiring into the use of oil fuel in the Navy. Mrs. Jones, who was the second daughter of the Rev. W. Edwards, Bangor, met her husband while studying at Newnham College.

SAYERS.—At 82 King's Road, Chelsea, London, S.W., on August 13, Mr. Frederick William Sayers, chemist and druggist, aged thirty-nine. Mr. Sayers, before purchasing the old-established business of Pasmore & Son in King's Road, Chelsea, had gained a wide experience of pharmacy at home and on the Continent. He served as a Volunteer pharmacist in South Africa during the Boer War.

SHAND.—On August 8, after a short illness, Mr. John J. Shand, chemist and druggist. Mr. Shand served his apprenticeship in his native town with Mr. McGregor, chemist and druggist, Ellon. Eighteen years ago he joined Messrs. Brown & Co., Ltd., of Ceylon, eventually becoming manager of the company's Hatton branch. He spent a holiday in Aberdeen two years ago, and was coming home again on doctor's orders when his death occurred from dysentery. He leaves a widow and a son.

WADE.—At the Cottage Hospital, Sevenoaks, on August 15, Mr. John Wade, D.Sc., F.I.C., demonstrator in chemistry at Guy's Hospital, London. Dr. Wade died from injuries received in a collision when motor-cycling on July 28.

POISONING FATALITIES.

Ammonia.—James Wardle (46), of Waterloo, killed himself by taking ammonia.

Camphorated Oil. drunk in mistake for stimulant, caused the death of Christopher John Peterson, fishmonger, Jarrow.

Cantharides.—A hair-preparation containing cantharides was the suicidal agent used by Alfred Taylor (27), carman, Islington. At the inquest it was stated that deceased's heart had been in a bad condition, or he might have recovered.

Disinfectants.—Carbolic acid was taken for purposes of self-destruction by Wm. Henry Jones (32), mortuary-keeper attached to the St. Luke's Coroner's Court, London.—A cresylic-acid preparation was given by a Dublin nurse to a shop-assistant named Patrick Dowling in mistake for medicine, with fatal consequences.—An Aberdeen woman named Mary Ann Rothnie (57) also died through taking some disinfectant in error.

Laudanum.—At Belfast, John Pollock (44) died from taking laudanum by misadventure.

Mercuric Chloride. in tablet form, was the lethal agent used by Mary C. Enright, an American widow, who was found dead on the beach at Hythe.

Potassium Cyanide.—Thomas Duckworth (25), aerated-water manufacturer, Leicester, was seen in a local hotel to add a powder to some stout he drank. He then staggered to the door, and died on the step. It is thought that potassium cyanide was accidentally used in mistake for some rheumatism-powder deceased was accustomed to take.

Prussic Acid.—At Chelsea, Mr. F. W. Sayers, chemist, poisoned himself with this chemical.

Smelling-salts.—The death by misadventure of Florence M. J. McDonald (24), of Drayton Park, was due to drinking from a bottle containing smelling-salts in mistake for a water-bottle.

Spirit of Salt.—At Bootle, Wm. Murray (28) ended his life by purposely swallowing some spirit of salt.

Strychnine.—At Coshquin, co. Donegal, Aaron Thompson took strychnine with fatal effect. He had purchased the poison in Londonderry ostensibly for killing crows.

LEGAL REPORTS.

TRADE LAW.

National Insurance Act.—The first prosecution under this Act for refusing to pay the contributions towards the health insurance of his employes took place at the Lambeth Police Court, London, on August 20. The defendant, a clothier and draper in a large way of business, was charged with seven offences. The result was that he was fined 5*l.* upon each of three summonses, with 5*l.* 5*s.* costs upon the first, and was ordered to pay the contributions due. Mr. Humphreys, for the Insurance Commissioners, said it was unfair to other persons that an employer should fail to comply with the Act, and it placed the employed persons at a disadvantage as regards benefits. For the defence it was contended that no contributions are payable under the Act until the Insurance Commissioners are ready with the benefits which the Act provides. It was also contended that an employer might stamp a card at any time down to the last moment of its currency, and that the prosecution had given no evidence of the issue to any contributor of any card within the meaning of the Act. Asked to state a case, the Magistrate said the application must be in writing, and he would then consider it. The other cases were adjourned *sine die*.—At Woolwich Police Court on August 21, a baker was charged with not having paid the contributions due from him in respect of certain employes under the Insurance Act. Of the nine summonses only three were dealt with. The defendant was fined 5*l.* and 5*l.* 5*s.* costs on the first and 1*l.* and 2*s.* costs on each of the other two. It was contended that in the absence of the regulations for medical benefit the State has not carried out its implied contract with contributors.

Medicine-stamp Acts.

NO STAMPS OR LICENCE.

At the Dover County Petty Sessions on August 15, Thomas James Crompton, of Eythorne, was summoned for selling a preparation liable to stamp-duty as a patent medicine without duly stamping the same, and also for selling without having a licence. Mr. R. J. Beattie, of the Solicitor's Department, Customs and Excise, London, who prosecuted, stated that defendant sold a preparation called Semajoo ointment. The words on the label—"Ask your shopkeeper for Semajoo ointment for piles, sores, burns, scalds, etc."—held out a recommendation for the relief of a disorder affecting the human body, and so came within the section of the Act. After evidence of purchase of a twopenny tin of ointment had been given, defendant, on oath, said that he had not the slightest idea that a licence was required.—Mr. Chitty, for the defence, pointed out that after the Inland Revenue officer called defendant offered to get back all the ointment he had issued for sale, and have the boxes stamped. The Board of Excise, however, insisted on taking proceedings. The Bench considered the case was a trivial one, and fined defendant 1*s.* The costs of the prosecution were not allowed.

BANKRUPTCY REPORTS.

Re Thomas Howard Lloyd & Co., Leicester and Nottingham, Wholesale Druggists.—The Leicester Official Receiver issued the accounts in this matter on August 17. The joint estate shows liabilities amounting to 66,872*l.* 10*s.* 1*d.*, and net assets are estimated to realise 7,278*l.* 14*s.* 7*d.*, leaving a deficiency of 59,593*l.* 15*s.* 6*d.* The principal amounts have been given in previous issues. In the separate estate of Thomas Howard Lloyd the liabilities amount to 3*l.* 4*s.* 6*d.*, there are preferential creditors for 6*l.* 16*s.* 5*d.*, and the assets are estimated at 50*l.*; while the separate estate of Wm. Howard Lloyd discloses liabilities totalling 1*l.* 9*s.* 2*d.*, two creditors for rent and rates payable in full 3*l.* 8*s.* 8*d.*, and assets estimated at 25*l.*

Re Willis Knight Redford, 28 Oldham Road, Miles Platting, Manchester, Drug-store Keeper.—The public examination of this debtor was commenced at the Manchester Bankruptcy Court on August 16. His statement of affairs showed liabilities to unsecured creditors 450*l.* 19*s.* 10*d.*, and assets estimated to produce 84*l.* 9*s.* after the payment of preferential claims. From debtor's answers to the Official Receiver (Mr. J. Grant Gibson) it appeared that he commenced business on his own account in September 1910,

acquiring from the liquidator the business of the Whalley Drug Co. (M.P.), Ltd., carried on in Oldham Road, Miles Platting, a company in whose employ he had been. He had no capital of his own, but borrowed 100*l.* at 5 per cent. interest from a friend; that money was still owing. In addition, he got 50*l.* from a money-lender later on. A sum of 45*l.* was paid for the stock and goodwill and 17*l.* 10*s.* for fixtures. Debtor declared that the business never paid from his taking it over. He calculated that his gross profits were not more than 3*l.* a week, while his business, household, and personal expenses averaged 4*l.* 15*s.* a week. Since January last he had paid out at least four executions, and at the date of the receiving order there were two executions with the Sheriffs' officer in possession, while twelve other creditors had obtained judgment against him, but had not levied execution. Debtor attributed his failure to lack of capital, heavy expenses compared with turnover, law expenses, and heavy interest on loans. The examination was closed.

DEEDS OF ARRANGEMENT.

Baker, William, trading as W. Baker & Co., 15 Paul Street, St. Paul's, and residing at Sunny Bank, Stapleton, both Bristol, Chemists' Sundriesman.—Trustee: A. Collins, Baldwin Street, Bristol, C.A. Dated, August 10; filed, August 17. Liabilities unsecured, 989*l.*; estimated net assets, 417*l.* The creditors include: T. Hodgkinson, Prestons & King (10*l.*); Howards & Sons, Ltd. (15*l.*); Shirley Bros., Ltd. (39*l.*); Colthurst & Harding, Bristol (14*l.*); F. F. Fox & Co., Bristol (78*l.*); Heaton, Mountstephen & Co., Bristol (10*l.*); H. Matthews, Ltd., Bristol (17*l.*); Robinson & Sons, Ltd., Chesterfield (18*l.*); Mrs. M. Baker, Redland (150*l.*); F. W. Woodman, Stapleton (150*l.*).

Wallace, Edwin Robert, 30 Walmgate, York, described as a Chemist.—Trustee: C. A. Rymer, Nessgate, York, C.A. Dated, August 8; filed, August 15. Liabilities unsecured, 452*l.*; estimated net assets, 101*l.* Among the creditors are: Keene Co., London (3*l.*); E. F. Wallace, Harrogate (156*l.*); Eucryl, Ltd., Hull (3*l.*); Ayrton, Saunders & Co., Ltd., Liverpool (3*l.*); Hall, Foster & Co., Newcastle-on-Tyne (3*l.*); Blyton, Astley & Co., Manchester (5*l.*); Camwal, Ltd., Harrogate (4*l.*); Bleasdale, Ltd., York (45*l.*); Raimes & Co., York (18*l.*).

GAZETTE.

Partnerships Dissolved.

CRAKE, J. W., and DUNCAN, J. G., 62 Gibson Street, Newcastle-on-Tyne, chemists.

MAPPIN, S. C., and MAPPIN, W. J., 121 New Street, Birmingham, surgical instrument makers.

PARTINGTON, W. (dec.), and FRANCIS, G. W., Tunstall, physicians.

SEALY, R. B., and BOYLE, A., Disley, Chester, physicians.

The Bankruptcy Acts, 1883 and 1890.

RECEIVING ORDER.

WILLIAMS, F. L., High Road, Ilford, chemist.

ADJUDICATIONS.

HEWSON, F., Lawrence Street, York, vendor of veterinary preparation.

HOWLIN, A. J., Ivy Dene, Park Avenue, and Central Drive, Blackpool, physician and surgeon.

IRLAM, H. A., Hitchin Road, Luton, chemist.

LIMITED COMPANIES.

New Companies Registered.

The letters P.C. mean Private Company within the meaning of the Companies Act, 1907, and R.O., Registered Office.

SULPHUR SYNDICATE, LTD. (P.C.).—Capital 5,000*l.*, in 1*l.* shares. Objects: To carry on a business not particularly described, except in the title, and to adopt an agreement with J. L. Elliot and H. O. Berg.

J. ASHFORD & SON, LTD. (P.C.).—Capital 1,000*l.*, in 1*l.* shares. Objects: To carry on the business of manufacturers of and dealers in photographic materials of all kinds. The first directors are J. Ashford and A. Ashford. R.O., 179 Aston Road, Birmingham.

PACOLIN, LTD. (P.C.).—Capital 5,000*l.*, in 1*l.* shares. Objects: To carry on the business of manufacturers and sellers of disinfectants and sanitary compounds, chemical manufacturers, drysalts, analytical chemists, druggists, etc. The first subscribers are: O. McCracken, 44 Harrington Road, S.W., commercial clerk; and Miss A. M. Terry, "Tilter-down," Milton Road, Hanwell. R.O., 15 Elm Street, Gray's Inn Road, London, W.C.

ARSENIC OF SPAIN, LTD.—Capital 10,000*l.*, in 1*l.* shares. Objects: To take over the arsenic mine known as San Jose, Spain, with factory, dwellings, and other premises, and to adopt an agreement with Le Vicomte Max Isle de Beauchaine, G. Y. de Villarty, I. C. Charlesworth, and C. Ferrières. The number of directors is not to be less than two nor more than seven; the first are Le Vicomte Max Isle de Beauchaine, G. T. de Villarty, I. C. Charlesworth, and C. Ferrières. R.O., 46 Fish Street Hill, London, E.C.

Company News.

P.A.T. SYPHON CO., LTD.—To be voluntarily wound-up. Liquidator, C. H. Smallwood, 7 Martin's Lane, Cannon Street, London, E.C.

JOHN OAKLEY & SONS, LTD.—The directors have declared an interim dividend on the ordinary shares at the rate of 10 per cent. per annum.

PINOXIC SYNDICATE, LTD.—Liquidator (G. J. Johnson) reports to meeting at Capel House, 62 New Broad Street, London, E.C., on September 20, at 11 A.M.

G. M. WILLIAMS & CO., LTD.—A notice of the appointment of C. A. Radermacker, 36 Camomile Street, London, E.C., as receiver on July 26, under powers contained in debenture dated July 10, 1911, has been filed.

REMOVALS FROM REGISTER.—The undermentioned joint-stock companies are by notice gazetted on August 13 struck off the register at Somerset House, London, W.C.: Chemical Blood Manufacturing Co., Ltd.; Commercial Chemists' Manufacturing Co., Ltd.; English Medical and Dental Financial Association, Ltd.; General Pharmaceutical Specialities Co., Ltd.; Kansinc Foods, Ltd.; Monazite Ltd.; New Perfect Food, Ltd.; Non-Trust Soaps, Ltd.; Ozonia Co., Ltd.; Zeldeck Toilet Manufacturing Co., Ltd.

Charges or Mortgages.

Under the Companies (Consolidation) Act, 1908, Section 93, the mortgages or charges therein specified are (except in Scotland) void against the liquidator and any creditor of the company unless filed with the Registrar in accordance with the conditions laid down in the Act.

Full statutory particulars of the following have been filed at Somerset House, London, W.C.

J. Savage & Co., Ltd.—Two mortgages on certain land and premises in Bradford, dated August 12, to secure 250*l.* and 300*l.* respectively. Holders: Bradford Third Equitable Benefit Building Society. A memorandum of satisfaction in full on August 10 of mortgage dated February 1, 1909, securing 800*l.*, has also been notified.



[Photo. Cleworth.]

SIR EDWARD EVANS IN SIRIKING ATTITUDE.
(Bruntsfield Links, August 2.)

PERSONALITIES.

Notes for this section sent to the Editor should be authenticated, and must not be in the nature of advertisements.

MR. W. BRAMLEY TAYLOR, The Birches, Weybridge Common, has been elected Master of the Apothecaries' Company in succession to the Lord Mayor.

MR. F. B. BENNETT, chemist and druggist, King Street, Whitehaven, was recently awarded the second prize in the window-dressing competition held in connection with the shopping week.

MR. EDWARD S. FRANCIS, King's Heath, Birmingham, writes in regard to the death of Mr. James Smith (*C. & D.*, August 17, index folio 285): I am sure it will be in accordance with the wishes of those who, like myself, worked with him for the National Union of Assistant Pharmacists, if I express appreciation of his manly spirit, his unwavering rectitude, and of his kind and sympathetic nature. We value the work he did in the endeavour to further the interests of assistant pharmacists. James Smith was a good friend and a true comrade.

WILLS PROVEN.

MR. BENJAMIN HOWARD MANDER, Manor House, Trysull, Staffs, and of Mander Bros., varnish, paint, japan, and printing-ink manufacturers, Wolverhampton, left estate valued at 155,373*l.* gross, with net personalty 143,657*l.*

MR. GEORGE BROCKBANK CARRUTHERS, chemist and druggist, 27 Halifax Road, Ainsdale, formerly of Messrs. Carruthers & Bagnall, Lancaster, who died on June 12, left estate valued at 650*l.* 5*s.* 7*d.* gross, with net personalty 616*l.* 14*s.* 7*d.*

MR. RICHARD HOUGH, Malvern House, Wigan, connected with Hough, Hoseason & Co., manufacturing chemists, Manchester, who died on May 4, left estate of the gross value of 19,926*l.* 3*s.* 6*d.*, of which 15,226*l.* 12*s.* 4*d.* is net personalty

MR. JOHN GEORGE DAVIS, Eagle House, Marine Drive, Monkseaton, chemical manufacturer, of Messrs. Davis, Goodall & Co., who died on April 15, left estate of the gross value of 7,786*l.* 18*s.* 5*d.*, of which the net personalty has been sworn at 7,630*l.* 19*s.* Probate of his will has been granted to Mr. Thomas Towns, draper, and Mr. Robert Acrid Wallis, chemist and druggist, both of Monkseaton.

MR. JOHN BIRKETT, Ph.C., Morecambe, who died on June 24, left estate of the gross value of 11,847*l.* 3*s.* 11*d.*, of which 3,352*l.* 15*s.* 8*d.* is net personalty. Probate of his will has been granted to Mr. William Edmondson, 11 Vicarage Terrace, Kendal, retired chemist, and his sons, Mr. Wm. Rawes Birkett, 23 New North Road, Huddersfield, dental surgeon, and the Rev. Charles Birkett, Ardwick.

MR. WILLIAM HENDERSON, Windsor Terrace West, Glasgow, and 15 Cadogan Street, Glasgow, merchant and drysalter, of Henderson, Hogg & Co., and a director of the Acadia Sugar Refining Co., Ltd., who died on April 15, left, in addition to real estate, personal estate of the total value of 109,525*l.*, of which the personal estate in the United Kingdom amounts to 104,577*l.*, and of this his interest in Messrs. Henderson, Hogg & Co. is valued for probate at 12,876*l.*

MR. THOMAS PEARS, Mevagissey, Isleworth, and of A. & F. Pears, Ltd., soap manufacturers, and a director of the Lanadron Rubber Estates, Ltd., who died in the wreck of the *Titanic* on April 15, aged twenty-nine, left estate "so far as at present can be ascertained" of the gross value of 16,763*l.* 10*s.* 7*d.*, of which the net personalty has been sworn at 16,371*l.* 10*s.* 6*d.* Probate of his will, dated September 15, 1910, has been granted to his brothers, Mr. Roland Pears, Holywood, co. Down, and Mr. John Pears, Court Lodge, Ewhurst, Hawkhurst. The testator left 100*l.* to each of his brothers, Roland Pears and John Pears; 100*l.* to each of his godchildren, Helen Clayton Beadle, James Barbour Pears, and John Horton Register; 5,000*l.* and all his household and personal effects to his wife, Mrs. Edith Pears, absolutely; 50*l.* to Charles F. Yates, working with him in A. & F. Pears, Ltd., "in recognition of various services rendered by him"; 50*l.* to Robert H. Brinton, "in recognition of secretarial work done by him for me"; 50*l.* each to Harry W. New and James Thomas Reeve, both of Isleworth. The residue of his property he left to his wife for life, with remainder to his children in equal shares.

REVIEWS.

A Treatise on Commercial Pharmacy. Intended as a Reference-book and a Text-book for Pharmacists and their Clerks. By D. CHAS. O'CONNOR. 8½ in. × 5½ in. Pp. 408. 10s. 6d. net. (London and Philadelphia: J. B. Lippincott Co.)

THIS work deals with the mercantile side of pharmacy, which the author claims now takes precedence to the purely professional side as a business asset. The foundations of pharmacy, he says, rest upon buying and selling; but these two transactions depend upon capital, keeping accounts, knowledge of goods, knowledge of business methods, commercial law, commercial arithmetic, banking, business correspondence, business etiquette, salesmanship, advertising, store-displays, window-displays, business economics, business systems, business-building, store service, accounting, etc. All these diverse sides of business are treated sequentially, beginning with the question of financing a pharmacy and choosing its location, to the building-up of new departments in an established business. Although the book is written in accordance with American law and trade conditions, yet it is full of shrewd common-sense and ideas which can be utilised on this side of the Atlantic with much advantage. The chapters on management, figuring profits, stopping waste, and stock are especially valuable. Business correspondence, salesmanship, window-dressing, and advertising are also dealt with at length.

Handbuch der Pharmakognosie (Handbook of Pharmacognosy). By A. TSCHIRCH, Ph.D., M.D., Professor of Pharmacognosy and Pharmaceutical Chemistry and Director of the Pharmaceutical Institute of the University of Bern. In about 40 Parts. Vol. II. Section I. Pp. 775. With 237 Illustrations in the text and on inserted plates, together with 3 Maps. 1912. (Leipzig: Chr. Herm. Tauchnitz.)

NEARLY four years have now elapsed since the writer had the pleasure of bringing to notice this exceedingly comprehensive work (*C. & D.*, 1908, lxxiii., 757), only the first numbers of which had then appeared. In the meantime its publication has progressed in accordance with the original plan of the author and without interruption, as the occasional references to it will have indicated (*C. & D.*, 1909, lxxiv., 373; 1910, lxxvii., 322). The first volume, which comprised in its two sections 1,072 pages, with 475 illustrations and several maps, was completed about two years ago. This embodied a very large amount of information relating to the fundamental concepts of the science of pharmacognosy, such as its definition and objects; the cultivation and collection of medicinal plants, and the routes by which various drugs are brought into commerce; the systems and literature of the subject, together with a plan of instruction therein; the methods of testing drugs for their identity and purity; a consideration of the auxiliary sciences, such as botany, chemistry, zoology, and physics, in their special application to pharmacognosy, together with the geographical distribution of drugs and an account of the knowledge concerning them from the earliest times. In connection with the last-mentioned division of the subject a very complete survey is given of the older Pharmacopœias and other noted works, the authors of which are so prominently identified with the development of this particular department of science.

The second volume of the "Handbook" is devoted to that branch of the subject which is defined as Special Pharmacognosy, and inasmuch as the first section of this is now complete, it is deemed opportune to give a brief exposition of its scope and contents. In the treatment of the large amount of material which here requires consideration the author, for reasons which are fully explained, has departed from the method of classification heretofore most generally adopted, whereby drugs were described according to their morphological relationships or in groups representing the families to which they severally belong, and has adopted a chemical system. The latter plan is regarded as the only rational or consistent one, since it is based on the consideration that drugs are em-

ployed on account of their constituents, quite irrespective of their botanical or geographical sources. In accordance with this view, the section of the work now under notice comprises drugs with such constituents as permit of their inclusion in the following principal groups: I., Drugs containing carbohydrates, with their numerous subdivisions—for example, the sugars or related sweet substances with six carbon atoms; disaccharides, trisaccharides, and polysaccharides, the latter comprising starch, amyloextrin, and dextrin groups, together with drugs containing inulin, lævulin, triticin, and scillin, etc. II., Albuminoid drugs. III., Drugs containing organic acids. IV., Drugs containing fats and waxes. The chief difficulty attending this method of classification is naturally the fact that many drugs are known to contain a large number of well-defined substances, and whatever constituent may be selected for determining their place in the system the same drug would necessarily require mention in several places. The author considers this to be quite immaterial and of no disadvantage, and while it is true that in many cases a characteristic or predominant constituent may readily determine the place of any particular drug in the system adopted, in others the difficulty would appear to be not easily surmounted.

It would be quite futile to attempt any detailed review of such an elaborate treatise as that under notice, and, with consideration of the enormous amount of time and arduous effort involved in the scientific and literary researches necessary for its production, the only expression concerning it must be one of unqualified commendation. The occurrence of a few inaccuracies, or the omission of some facts that would appear to merit more extended notice, is naturally inevitable in a work of this magnitude. It may, however, be indicated that on page 724 the reference to "Chaulmugra or gynocardia oil from *Gynocardia Prainii*" as a vegetable fat belonging to the oleic-acid group is not quite correct, and from the brevity of the notice it seems probable that the researches on this particular group of oils have been overlooked. Although the oil from the seeds of *Gynocardia odorata*, R.Br., which is a liquid, contains oleic acid and other ordinary unsaturated acids, together with palmitic acid, the true "Chaulmugra oil," and the product occurring under this name in commerce (from the seeds of *Taraktogenos Kurzii*, King), is at ordinary temperatures a soft solid, consisting chiefly of the glycerides of an entirely new type of optically active, crystalline acids, which have no relationship with oleic acid (compare "Journ. Chem. Soc.," 1904, lxxxv., 838; 1905, lxxxvii., 884, 896; 1907, xci., 557).

Attention has previously been directed to the large number of interesting and instructive illustrations with which the "Handbook" of Professor Tschirch is embellished, and with regard to the text it may truly be said that in no single work has the science of pharmacognosy ever before been presented in such a degree of completeness. While anticipating the appearance of the remaining parts of the work, which will be of special importance and value, congratulations may be extended to the author for the great task which he has already accomplished.—*F. B. Power.*

NEW BOOKS.

Botanic Gardens, Singapore. *Index of Plants.* 9½×6. Pp. 152. \$1. (Methodist Publishing House, Singapore.) [This index of plant-names is intended to facilitate exchange of plants and seeds with other botanic stations. An appendix has also been added to facilitate the selection of economic plants.]

Humphrey, John. *Materia Medica of Vegetable and Animal Origin, with Notes on the Pharmacy of Official Drugs.* 3rd edit. 6½×4. Pp. xliii+564. 6s. 6d. net. (H. Kimpton.) [The text of the new edition is unaltered, the fresh information regarding the chemistry of drugs being included in a separate introductory chapter, instead of being incorporated in the monographs. The tabular synopsis has also been revised. The list of "important" corrections begins to look large enough to warrant the work being revised throughout.]

Pharmacy Pots at Versailles.

NO one appreciates old-world cities and art treasures more than our cousins from the New World, and they are indefatigable in finding quaint spots and quaint relics of which many natives born French citizens are oblivious.



Recently the Paris "New York Herald" published an interesting note (illustrated by photographs which we reproduce by permission of the Editor) regarding the remarkable collection of old drug-pots which has survived so many Revolutions, and still remains in the pharmacy of the Versailles Hospital. This series is characteristic, and embraces nearly every form of pharmaceutical pottery of the period—"albarelli" and "chevrettes"—all of a most artistic character. The pots were all made at the St. Cloud potteries in the seventeenth or eighteenth century, and some of the ablest workmen of the Sèvres Porcelain Works were engaged in the decoration. Martin Lister, the English doctor, who toured France in 1698, tells us that St. Cloud ware was "indistinguishable from the handsomest Chinese porcelain," and fetched high prices.

A BIBLIOGRAPHY OF PHARMACY POTS.

The references to old pharmacy pots in THE CHEMIST AND DRUGGIST extend over a number of years, and as these articles form the only publication in English where information on pharmaceutical ceramics can be obtained, we are often asked whether we intend publishing them in book form for the benefit of the numerous pharmacists who collect or are interested in old pharmacy pots. As a step in that direction it has occurred to us that a bibliography of the chief references would be useful.

XXXVIII., 161, A group of five blue and white jars. Contributed by "F. R." (Fred Reynolds). 219, Mr. John Hodgkin in a letter identifies "F. R.'s" pots as Bristol

ware, and gives particulars about the contents, with some notes on thirteen other jars. 284, Mr. H. O. Huskisson describes a cabinet of old jars (fifty-eight) in his possession. 319, Mr. John Hodgkin offers to give particulars of the old medicaments referred to. "E. J. W." also has a letter on the same subject. 424, Illustration of Mr. Huskisson's cabinet, and sketches of separate jars. Also shown two jars from Scheele's pharmacy. 467, Description of pots in possession of Mr. J. T. Gray.

XL., 165, Pots in the Nuremberg Museum described and illustrated by Mr. H. Holbing. 409, Sketch of two jars, of 200, in Villegas' pharmacy, Madrid.

XLVIII., 165, Two jars of several in the possession of Corbyn, Stacey & Co.

LVI., 164, Treatise on "Pharmaceutical Ceramics," with illustrations of the collection of M. Comein, Antwerp.

LIX., 128, Sixteen jars belonging to Boileau & Boyd, Ltd., Dublin. 129, Mention of ten pots dated 1684 at Evans' pharmacy, Dublin. 680, Eighteen pots from the collection of Mr. J. Austen.

LXI., 573, Group of nine pots in pharmacy of Mr. R. Hine.

LXIII., 159, Four jars in Vajsenhus Pharmacy, Copenhagen.

LXV., 167, Illustrations of jars in collection of Mr. A. E. Pratt.

LXIX., 500, Mention of an article on pharmacy pots in the "Ladies' Field." 806, Short note on pharmacy pot.

LXXI., 289, Note on pots in Canterbury Museum. 450, Sale of two jars at Dundee. 443, Thirteen jars belonging to Mr. H. G. Pattison, Derby. 942, Lecture on "Pharmacy Pots" by Mr. John

D. Marshall and M. Deuterte (Boulogne).

LXXII., 157, Treatise on "Pharmaceutical Ceramics," with illustrations of jars in possession of the Central Pharmacy of the Parisian Hospitals and M. Deuterte, Boulogne. 165, Heudier's (Paris) collection. 582, Note on collection of Mr. James Prior, Stamford. 853 (also 40), Note on Dorveaux's book on pharmacy pots.

LXXIII., 164, Treatise on the Reber (Geneva) fine collection of pharmacy pots, with thirty-three illustrations.



LXXVI., 596, Sale of Faenza pharmacy pot.

LXXVII., 677, Sale of pharmacy pots, one of wood. 712, Legacy of pharmacy pots to Louvre Museum. 734 and 850, The collection described.

LXXX., 4, Collection presented to Paris School of Pharmacy.

SCIENTIFIC PROGRESS.

Temperatures under this heading are on the Centigrade scale.

Narcophin.—This new hypnotic is the meconic-acid compound of morphine and narcotine, having the following formula: $C_7H_4O_7 \cdot C_{17}H_{19}NO_5 \cdot C_{22}H_{23}NO_7 + 4H_2O$. It contains 31.2 per cent. of morphine. It is a white crystalline powder, and is said to be free from unpleasant after-effects.

Amphotropin.—This body is the camphoric-acid compound of hexamethylene-tetramine, $C_6H_{12} \cdot (COOH)_2 \cdot [(CH_2)_6N_4]$. It is a powerful internal antiseptic, consisting of 42 per cent. camphoric acid in combination with the nitrogen derivative. It forms a sulphate melting at 186° . The dose is 0.5 to 1 gram per day.

Otto of Rose.—Samples of the new season's otto of authentic origin and absolute purity have now been examined and found to have the following characters:

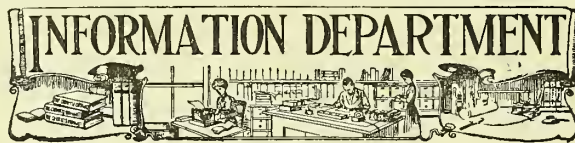
Specific gravity at $\frac{20^\circ}{15^\circ}$	= 0.859 to 0.862
Optical rotation	-3° „ $-3^\circ 50'$
Refractive index at 20°	1.4625 „ 1.4645
„ „ after washing	
„ with water	1.4630 „ 1.4655
Melting-point	20.5° „ 22°

Chloroform in the Blood.—Dr. G. H. Clark and Miss D. Lindsay, in a contribution to "The Lancet" (4639, Vol. 183) regarding the distribution of chloroform in the blood, state that in their research evidence is given that in rabbits the blood contains a larger proportion of chloroform in the plasma when the anæsthetic is given subcutaneously than when it is given as an inhalation. This is considered to be the reason for the delay in elimination, and the consequent greater injury to the tissues which is associated with this mode of administration.

Pareira-root.—At the last meeting of the Akademie der Wissenschaften in Wien a paper was read by Fr. Fattis on the alkaloids of pareira-root. From crude beberine sulphate (Merck) from the root three alkaloids were extracted: (1) Beberine, $C_{21}H_{27}NO_4$, soluble in benzene, amorphous, melting-point indefinite between 145° and 152° . Its specific rotation is $+28.6^\circ$. (2) An alkaloid insoluble in benzene, of the formula $C_{22}H_{25}NO_5$, and of specific rotation $+55.7^\circ$. (3) A beautifully crystalline alkaloid, insoluble in benzene, of the formula $C_{22}H_{25}NO_5$, and melting at 290° ; it is phenolic in character, and contains an OCH_3 and an NCH_3 group.

Determination of Iodine in Iodides.—V. Auger ("Comptes Rendus des Acad. des Sciences," June 17) finds that iodine in iodides, and especially in seaweeds, can very readily be estimated by oxidising the iodide with potassium permanganate and determining the iodate formed. The solution containing the iodide is made alkaline with soda, a concentrated solution of permanganate is added, and the liquid is heated, acidulated with acetic acid, and treated with hydrogen peroxide till the precipitated manganese dioxide disappears. Some dilute permanganate solution is then added, and finally hydrogen peroxide till the brown coloration is destroyed. One gram of potassium iodide and 5 c.c. of hydrochloric acid are added, and the iodine formed is determined by means of sodium hyposulphite.

Gum Tragacanth.—Emery ("Jour. Ind. and Eng. Chem.," 1912, 374) has carried out a series of experiments to see whether the presence of the so-called Indian gum (from *Sterculia urens* or *Cochlospermum Gossypium*) in gum tragacanth can be detected. He finds that the amount of volatile acids present affords a good indication of the presence of this adulterant. The determination is carried out in the following manner: One gram of the sample is placed in a 700-c.c. round-bottomed flask having a long neck, and allowed to stand for several hours in contact with 100 c.c. of water and 5 c.c. of syrupy phosphoric acid. When the gum is completely swollen the mixture is boiled for two hours under a reflux condenser until a clear solution containing only a little cellulose in suspension is obtained. The contents of the flask are then steam-distilled until 600 c.c. is collected. The distillate is then titrated with decinormal alkali. The acidity is expressed as the number of c.c. of decinormal alkali required for 1 gram of the gum. The examination of a number of authentic samples gave results varying from 3.2 to 4.2 c.c., equivalent to an average of 2 per cent. of acetic acid. The gum of *Cochlospermum Gossypium* yields about 14 per cent. of acetic acid, or a volatile-acid number of about 25, and that from *Sterculia urens* about 16 per cent., equivalent to a volatile-acid number of about 27. Admixture with either of these gums can therefore be detected.



Postal Address:
C. & D. INFORMATION DEPARTMENT, 42 Cannon Street, London, E.C.
Telegraphic Address: "CHEMICUS LONDON."
Telephone No.: BANK 852 (two lines).

INFORMATION WANTED.

We would be obliged if any reader would inform us by post-card or telephone who are the makers or agents of the articles mentioned in the following inquiries:

- 17/20. "Pine Pillows": makers.
- 17/400. Appenzall's purgative milk.
- 19/4. "Velmar's Cream": suppliers.
- 17/4. "Albu-Lacto-Phosph": makers.
- 18/36. "Orion" vacuum flask: supply.
- 21/31. "New York" health-food: supply.
- 20/23. "Splendid" vacuum flask: makers.
- 17/401. "Bernese Oberland" sterilised milk.
- 20/25. Chase's nerve-pills: address of maker.
- 21/19. Makers or suppliers of hygienic lamps.
- 22/47. Address of "Reid & Campbell," makers of vacuum flasks.
- 11/54. "Eucrasyne" (drunkenness-cure): address of makers.
- 21/24. "Crème Dalcy": address of makers or suppliers.
- 18/67. What is "Chestnut-powder" (for face massage), and who supplies?
- 19/10. Pure blue unglazed squat square pots (1 oz.), with aluminium screw caps: makers or first-hand suppliers.

INFORMATION SUPPLIED.

During the past week we have answered inquiries as to the makers or sellers of the following articles. The information will be repeated to other inquirers who send to this Department a stamped and addressed envelope for the purpose.

- | | |
|--|---|
| Abbott Alkaloidal Co.'s specialties, 18/1 | Naldire's dog-soap, 20/17 |
| Amber malt-bottles, 17/35 | Olio Sasso, 18/710 |
| Bleaching-powder (export quantities), 13/184 | Oxygen-producing powder, 21/72 |
| Boracic powder, 18/41 | Paris white, 13/10 |
| Chemical Union, Ltd., address, 18/55 | Pasteur (Chamberland) filters, 18/35 |
| Clark's "Glycola," 17/49 | Pine-wood and preparations, 17/20 |
| Core-gum (for making cores for iron castings), 17/61 | Pomade-jars (celluloid caps), 16/18 |
| "Daisy" fly-killer, 19/1 | Powdered soap, 19/3 |
| Dermatograph pencils, 20/26 | "Premier" one-solution hair-dye, 15/63 |
| "Eau de Mélisse," 18/71 | Radiozinc, 21/720 |
| Epsom salts (for export), 13/183 | "Regalia" toilet-powder, 18/34 |
| "Escolent" preparations, 20/32 | Robin's iron peptonate, 17/490 |
| Eumydrin, 21/32 | Scott's magic salve, 17/740 |
| "Ever-Safe" soothers (Pat. No. 12577), 22/44 and 23/62 | Sputum analysis, 19/40 |
| Filter-papers, 19/200 | Sugar of lead (for export), 13/180 |
| Glauber salts (makers), 13/182 | Tablet makers (in million lots), 18/41 |
| Herbs (all kinds), 20/1 | Tannobromine, 17/31 |
| Hostetter's bitters, 18/74 | Thiocamf, 13/50 |
| Hygienic lamps, 21/19 | Thymolyptol, 17/74 |
| "Imperial" porous plasters, 19/16 | Trypsogen, 18/72 |
| Jackel's cream, 18/1 | Vapo-naphthol, 18/73 |
| Jackson's pectoral balsam, 18/52 | Vermisol, 21/30 |
| Kaolin, 11/66 | Violet-perfumed toilet-parafin (in 1s. bottles) (Demerara inquiry), 21/59 |
| "Life-Boat" feeders, 17/14 | Whitaker's soaps, 20/24 |
| Membroids, 21/320 | Williams' shaving-soap, 21/31 |
| "Morstadt" cachets, 22/22 | Winchester quarts, 19/2 |
| Muscatoil, 20/27 | |

APPRECIATIONS.

- From a New Zealand Pharmacist:
"Many thanks for answering my query in re "Crissel." Your journal is invaluable." (22/9.)
- From a Devonshire Pharmacist:
"Many thanks for yours of this morning re pomade-pots. I may say I would rather go without a new hat than the C. & D. (18/36.)"

OBSERVATIONS & REFLECTIONS.

By Xrayser II.

The Examination Figures

given in your leading article are hardly sufficiently detailed to enable one to get a clear idea of the influence on pharmacy of the various changes that have been made from time to time. A comprehensive summary giving the totals during the quinquennial periods, rather than isolated years, would probably have been more useful. Two facts, however, stand out quite clearly. The first is that young blood is flowing more freely into our ranks, and the outlook is, therefore, not so dark as it was a few years ago. This is largely due to improved prospects as to the salaries and hours of service, and I agree with you in thinking that the outlook will be still further improved if the National Insurance Act gets a proper chance. The second point that strikes me is that the Pharmaceutical Society is going very soon to "feel the draught" in the reduction of examination-fees. Judging from your figures the entries have receded to the level of twenty-five years ago, and the receipts from fees must have fallen enormously in the last few years. The expenses of the Society have, on the other hand, been rising all the time, and are still going up.

The Admission of Women

to the membership of the Society is an old story, but you do well to recall it, if only it serves to soften the asperities that are apt to be engendered in these days of fierce strife for votes for women. I am old enough to recall the contest, and also the much more strenuous struggle that was carried on by Miss Jex-Blake and her companions before women were admitted to medical classes. As to having women in the Council of the Society, my own view is that if there are lady members who have the aptitude, the time, and the desire to serve the Society in this capacity, we ought to be delighted to have their assistance. I, for one, would not raise the least objection, and I might even give a vote to a woman candidate.

Not a Single Case of Adulteration,

properly so-called, appears in the unusually long report of "Analysts' Affairs" in your last week's issue, the three or four cases in which any fault was found being entirely free from suspicion of fraudulent intention. They were, in fact, all cases of deficiency of the active ingredient, due to natural and almost unavoidable causes. The only exceptions were those of deficiency of sodium bicarbonate in soda-water. Whether these defective samples were procured from pharmacists or not does not appear, but in any case the deficiency was unimportant from the point of view of the ordinary soda-water drinker, who prefers the beverage without soda. There has been a steadily diminishing percentage of convictions under the Sale of Food and Drugs Act for a long time past, and I think the trade may be congratulated on the fact. We are not only better qualified to detect adulteration and prevent deterioration than we used to be, but more careful and punctilious. No doubt the law has been our schoolmaster, and its deterrent effect may still be in some measure directly operative; but there is abundant evidence of a more scrupulous conscience in pharmacists of all grades than was at all common within living memory.

Soda-water

was not invented, any more than Rome was built, in a day. The story of its evolution is briefly indicated

in Thorpe's Life of Priestley, who began his experiments in the aëration of water by means of carbonic-acid gas about a century after Van Helmont's discovery of that acid, but it had been told before at much greater length by Mr. William Kirkby, from whose work, "The Evolution of Artificial Mineral Waters," published in 1902, Thorpe seems to have borrowed freely without acknowledgment. Priestley (who had been to a considerable extent anticipated by others) first experimented with acid produced by fermentation; but this was unsatisfactory, and he then had recourse to chalk and an acid, the gas produced by them being conveyed into the water through a bladder and tube. This was in 1772. Nooth's gazogene was an improvement upon this apparatus, but was suitable only for aëration on a small scale. Henry, a Manchester apothecary, adopted the same principle to a larger apparatus, with which he made carbonated water, Pyrmont water, seltzer water, and Bewley's "Mephitic Julep"—so called from the fact that carbon dioxide had "Mephitic air" for one of its names. Bewley's julep was an aërated solution of soda, but the term "soda-water," says Mr. Kirkby, was first used by Cavallo in a treatise on the "Medicinal Properties of Factitious Airs," published by him in 1798. The following is the receipt for the julep, as quoted from Henry by Mr. Kirkby: "Dissolve three drams of fossil alkali [soda] in each quart of water, and throw in streams of fixed air, till the alkaline taste be destroyed, and the water have acquired an agreeable pungency. This julep should not be prepared in too large quantities, and should be kept in bottles very closely sealed. Four ounces of it may be taken at a time, drinking a draught of lemonade, or water acidulated with vinegar or weak spirit of vitriol, by which means the fixed air will be extricated in the stomach." Both soda and potash water were some time afterwards introduced into the Edinburgh Pharmacopœia.

Thunderbolts—

that is to say, belemnites, which were long popularly supposed to be thunderbolts—would possibly not have been regarded as *materia medica* but for another theory of their origin which is as old, at least, as Pliny. He gives, as does Dioscorides, the name *Lyncurium* to certain stones which subsequent writers have identified with belemnites, and this is supposed to have been derived from the Greek *lynxos ouros*, lynx's urine. An old manuscript in the Sloane collection says, "Lapis lincis cometh of the urine of a wolf . . . on the hylles and muntynes crudded." The animal, having deposited this as much out of the way as possible, from mere "petulance" (says another old writer), "hid it under ground, that no man might profit therewithal." The name given to the stone on this account occurs in another form in the Bible (see Ex. xxviii. 19), where as "figure" it appears along with the agate and the amethyst, as one of the ornaments of Aaron's breastplate. A stone having such an origin was evidently designed for use in urinary disorders, and it finds a place for this purpose in most of our old medical books. Who first identified it with the so-called thunderstones I do not know, but Lemery accepts the identification, as does our own Alleyne. The former writer describes several stones of different kinds and colours under the same head, and enumerates their virtues; Alleyne simply has "Thunderbolts; Belemnites, Lapis Lyncis." It is a curious instance of the survival of old superstitions that these stones were still in use in English popular medicine less than a hundred years ago. Polwhele, in his "Traditions and Recollections" (1826), says: "I knew an old woman who used to boil a celt (vulgarly a dunderbolt or thunderbolt) for some hours for 'the reumatiz,' and then dispense her [sic] water to the diseased."

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LIQUORS

Editorial Articles.

Pharmacy Problems in Ireland.

We published last week the regulations that have been made by the Irish Privy Council regarding the sale of sulphuric acid, nitric acid, hydrochloric acid, and soluble salts of oxalic acid, the poisons enumerated in Section 5 of the Poisons and Pharmacy Act, 1908. These apply to all persons selling these substances, whether qualified under the Irish Pharmacy Acts or not. By Section 5 of the Poisons and Pharmacy Act the poisons named must when sold retail be labelled (1) with the name of the substance, (2) the word "Poisonous," and (3) the name and address of the seller. The regulations made by the Order in Council impose the additional conditions that (4) the words "Not to be taken" must be printed on the label, and (5) that the poison must be in a bottle or container rendered distinguishable by touch from ordinary bottles or containers. Soluble salts of oxalic acid were already included in the Irish poison schedule under "Oxalic acid and all oxalates," so that a pharmaceutical chemist, chemist and druggist, or registered druggist will need to affix a label with the words "Poison" (under the Sale of Poisons (Ireland) Act), "Poisonous," and "Not to be taken" (under the Poisons and Pharmacy Act), in addition to the name of the substance and the name and address of the seller. The words "Not to be taken" must, according to the regulations just issued, be *printed*, but no such requirement is made by the Poisons and Pharmacy Act regarding the rest of the wording on the label. The curious result ensues also that as the oxalates are included in the Irish poison schedule they may not be sold in Ireland by unqualified persons as in Great Britain, where only "oxalic acid" figures in the poison schedule—that given in the Poisons and Pharmacy Act. The effect is, therefore, that "soluble salts of oxalic acid" when sold in Ireland have, over and above the requirements hitherto in force, to be labelled "Not to be taken." The mineral acids can, in Ireland as in Great Britain, be sold by unregistered persons provided the labelling requirements are carried out. The Poison Regulations adopted in Great Britain in 1899, and consequently part of the Pharmacy Act, 1868, have no counterpart in Ireland; but it is an interesting fact that, previous to the enactment of the pharmacy laws in Ireland and before such matters were thought of in Great Britain, a series of regulations was printed as a supplement to the Dublin Pharmacopoeia 1856, that work being produced by the Royal College of Physicians. These had not the effect of law, being recommendations only, but the main feature was that round bottles were to be employed for medicines intended for internal use and "angular" bottles for external remedies. The recommendations referred not only to medicines which were dispensed, but to a long list of drugs and chemicals kept in stock in shops and warehouses. The opinion is still held in Ireland, as it was for many years in Great Britain, that the qualification of the seller is of more importance in protecting the public against accidental poisoning than mechanical safeguards.

The Lord Lieutenant and Privy Council have approved of the regulations regarding the Preliminary and Pharmaceutical Licence examinations made at the Council-meeting of the Pharmaceutical Society of Ireland in July (see *C. & D.*, July 13, index folio 44). The effect of these is that on and after October 1, 1913, the Preliminary examination will include only arts subjects; elementary theoretical chemistry, elementary physics and mechanics, and the rudiments of botany being omitted. An additional requirement for the Pharmaceutical Licence examination is the production by candidates of a certificate of having attended a course of theoretical chemistry, consisting of not less than twenty-six lectures of one hour each, at some school recognised by the Pharmaceutical Council. The course must have been taken prior to the course of practical chemistry at present required. The question of the refusal of the Pharmaceutical Society to extend the list of recognised schools, on the ground that the Society's own course in Dublin is especially adapted for the requirements of candidates for the Licence and that the schools recognised in other parts of Ireland are sufficient, has brought us from Dr. J. C. McWalter the following letter:

The Department of Agriculture (Mr. T. W. Russell) is greatly incensed at the refusal of the Pharmaceutical Society to recognise courses of instruction at Dublin and other technical schools (which are under the Department). Mr. Russell came to loggerheads with the Pharmaceutical Society of Ireland over the matter of the Poisons and Pharmacy Act, and easily defeated them. There is now a suggestion that the Department will promote a new Pharmacy Act, giving the Apothecaries' Hall power to confer a qualification in pharmacy only, and an informal meeting to this end has already taken place between the authorities of the Department and the Hall. It is thought that at the same time a modification of the English Act will be adopted if the Pharmaceutical Society of Ireland does not conform to Government wishes.

What this means we are not quite sure. Mr. Russell would have to justify amply, in the House of Commons, any attempt to institute another pharmacy qualification in Ireland, the more so because it appears that his only object in promoting legislation would be to gain recognition for certain courses of instruction in the technical schools under the control of his Department. Moreover, the Apothecaries' Hall as a trading body is quite unsuited for the duty of supervising or carrying out the provisions of a Pharmacy Act. The Governors of that institution should be better employed in maintaining and improving the standard of medical education required for their diploma in medicine than in taking on further responsibilities in a field no longer theirs.

Medical Strategy.

THE tactics of the British Medical Association must appear to outsiders as both illogical and erratic. When the National Insurance Act was before the House of Commons the Association pressed upon the Government several suggestions for amending the Bill. The most important of these, being in the public interest, were accepted, and form part of the Act. We refer specially to the representation of the medical profession upon the Advisory Committee and upon Local Insurance Committees. The Advisory Committee, appointed under Section 58 "for the purpose of giving the Insurance Commissioners advice and assistance in connection with the making and altering of regulations," is required to have upon it representatives of "duly qualified medical practitioners who have personal experience of general practice." The Insurance Commissioners recognised their obligation in a generous manner, with the result that of

the 159 members of the Advisory Committee no fewer than thirty-three were medical men. The British Medical Association nominated thirteen of these, three nominations were by the Association of Registered Medical Women, the remaining seventeen being nominated by the Commissioners. It would hardly be possible to devise a better way of obtaining complete representation of medical men. In the matter of Insurance Committees the Act provides that, whatever the size of the committee may be, two doctors are to be elected directly by the medical profession and at least one more added by the Commissioners. Having been at all the trouble to obtain statutory recognition for doctors, the British Medical Association calls upon all medical men who have been appointed to throw up their positions because upon some matters the Commissioners, having no power to do so, do not accede to all the demands of the Association. We mentioned last week that some of the medical members of the Advisory Committee have refused to resign. These fourteen doctors state that "having carefully considered our position, and with a full sense of our responsibility, [we] are of opinion that for the present it is our duty to remain members of the committee." The medical men referred to include Dr. Christopher Addison and Mr. M. S. Harford, who have also given a detailed explanation of their position. Dr. Addison points out the inconsistency of the British Medical Association in the matter of the National Insurance Act, and in the course of his letter states:

The regulations are now being drafted and, I understand, will shortly be submitted to the Advisory Committee for their criticism. You would rightly complain if they turned out to be impracticable or unfair. Yet this is the moment at which you ask us to resign; to leave the work, which at your request we have been afforded an opportunity of doing, when it is at its most important and critical stage. It does not appear to me to be either consistent, dignified, or in accordance with common sense. Surely to leave our posts at this juncture would be to be untrue, not faithful to the cause of our brethren in the profession.

Mr. Harford deals also with the illogical position of the Association in allowing medical men to accept appointments in administering sanatorium benefit and at the same time endeavouring to prevent medical men, acting in an honorary position, from giving assistance in framing regulations dealing with the employment of those officers. We give a portion of Mr. Harford's letter, as it shows that those who know most about the subject are still hopeful that all may yet come right:

Nevertheless, I have a confident hope that when the Insurance Committees are in a position to offer terms to the profession, a way out, satisfactory to all, will be found. It will no doubt also be found that these committees (and this is as good as conceded by the Commissioners) will leave the question of the determination of the method of remuneration to the local profession in each area, and also that certain extras—to be definitely embodied in the regulations—will be paid by them. And then, as is likely to be the case, it may turn out that they can offer, say, 7s. 6d. per insured person (which with all extras would amount to over 10s. *per capita* for domiciliary treatment and medicines), and that they agree to institute a referendum in each area, sending to each practitioner a voting paper arranged somewhat like this: Which method of remuneration do you prefer: (a) Payment *per capita*? (b) Payment per attendance? And in the event of the majority of practitioners in any area favouring the latter method (b) adopting the system of pooling the above amount and dividing it among the practitioners according to the work done by each.

A suggestion is made that a referendum of medical men could be taken at the same time on the question of dispensing, but as dispensing for Insurance patients can only be undertaken by medical men in exceptional cases the Insurance Committees would not be able to accept the result, as can be done in the matter of remuneration of medical men. "The Lancet," referring to the "calling

out" of the medical members of the Advisory Committee, states:

We cannot help feeling that here there was a fault in logic, for it was with the Commissioners, duly informed upon medical affairs, and not with the Commissioners bereft of professional aid, that the future contest would surely be. We are not surprised, therefore, to find that certain medical members of the Advisory Committees are unable to see how the absence of medical men from the counsels of those bodies could be expected to help the medical profession in the numerous struggles that lie ahead. And surely, whatever be the issue of the existing situation, the medical voice on the Advisory Committees must be an influence for good, while the fact that it will still be heard cannot be interpreted by anyone conversant with the circumstances as indicating any weakening in the position of the practitioner.

A warning is also given of the attempts that are still being made to exploit the medical profession by politicians: a professional movement is being made a matter of political agreement. "This ought to cease," says "The Lancet," and it is to be hoped that the President of the British Medical Association will take the hint. There is just a further point in regard to dispensing-doctors which we desire to emphasise. A section of the medical profession is still desirous of dispensing for Insurance patients. Not to do so, writes Dr. Slane, of Burnley, would be "the loss of at least half of our incomes." To render it possible to hand over dispensing in general to doctors would require an amendment of the National Insurance Act, and this chemists must be prepared to resist to the utmost—assuming that "Jay Mack's" views are not those of the majority of pharmacists.

German Chemical Industry.

THE situation of the German chemical industry during 1911 is referred to at some length by the "Frankfurter Zeitung" of August 11, which states that the industry occupies the fourth position in the country's export trade, and exports over one-third of the production of manufactured chemicals, thus showing to what extent the industry is dependent on foreign markets for its prosperity. The total value of Germany's chemical and pharmaceutical exports increased from 15,455,000*l.* since 1895 to 37,645,000*l.* in 1911, the increase during the past two years amounting to 3,130,000*l.*, and this in spite of the unsettled conditions prevailing during the past year. Exports to China suffered considerably, mainly owing to cholera and the internal troubles. Relations with Great Britain showed temporary depression, this being due principally to the reaction caused by the decreased exports of textiles to China, while the election campaign acted unfavourably on business with the United States. The Russian market proved very unsatisfactory, and the increased duty in Japan adversely affected the exports of anilin dyes and indigo. The Italo-Turkish war has had but slight effect so far, as the increased exports of war material balanced the diminished demands for other products. Owing to the stress of competition, prices continued to decline. On the other hand, the cost of raw materials, except in the case of drugs, showed scarcely any fluctuations; coals were cheaper, but saltpetre was dearer. There were no strikes, while an increase in wages took place towards the end of the year, thus reflecting the general increase in the cost of living. Taking into consideration the seventeen most important joint-stock chemical works in Germany, it is shown that the total capital invested amounted to 12,072,000*l.*, while the reserve funds aggregated 5,155,450*l.* The total value of the ground and buildings owned by these seventeen firms amounted to 6,261,200*l.*, the machinery, etc., repre-

senting a value of 2,834,250*l.* The stocks on hand represented another 6,702,750*l.*, while creditors figured for 7,205,850*l.* The balance-sheets of these firms closed with assets totalling 32,433,600*l.* The gross earnings of the seventeen firms aggregated 6,583,050*l.*, an increase of 7.4 per cent., as compared with 1910, leaving net earnings amounting to 3,667,950*l.*, an increase of 9.3 per cent. over 1910. The total amount paid out in dividends was 2,396,950*l.*, representing an average of 19.8 per cent., against 19.7 per cent. in 1910. It must be remembered that a few of the well-known firms are in private hands and therefore cannot be considered, as no figures are available regarding their industry. It must be borne in mind also that the aim of the German chemical firms is to maintain the payment of a uniform dividend as far as possible; this explains the high sums transferred every year from the net profits to the reserve funds, designed to meet any contingency resulting from a falling-off in business. A few figures from the balance-sheets for 1911 of the three largest chemical-factories will best illustrate their importance:

—	Share Capital	Reserves	Stock	Buildings, land, etc.	Net Profits	Dividends
	£	£	£	£	£	%
Badische Anilin	1,800,000	1,051,700	1,046,050	1,452,450	699,400	25
Bayer Co. Ltd.	1,800,000	691,100	823,700	1,287,150	706,100	25
Meister, Lucius & Brünig ...	1,800,000	969,200	1,374,450	555,800	806,750	30

The next firm showing a large net profit is that of the Chemical Works Albert of Biebrich (artificial manures, etc.), which, with a capital of 500,000*l.*, earned a net profit of 247,200*l.*, paying a dividend of 30 per cent., against 32 per cent. in 1910, this being the highest paid by any German chemical firm in that year. The prospects for the chemical industry during the current year are regarded as entirely satisfactory. The strikes in Great Britain, coupled with the decreased exports in textiles to China from that country, adversely affect trade with England, but quite recently an improvement has been noticed. The same is looked for with regard to chemical exports to the United States. Exports to Mexico have, however, suffered largely this year because of internal troubles. The Italo-Turkish war, owing to the demand for war material, has been without noteworthy influence on this branch of Germany's industry.

Official Sight-tests.

THE minutes of evidence taken before the Departmental Committee on Sight-tests have been published this week. We referred briefly (*C. & D.*, June 29, index folio 939) to the report of the Committee, which is founded on the evidence now published. It may be recalled that as a result of complaints as to the value of the Board of Trade tests for seamen's eyesight, a Departmental Committee was appointed in 1910 "to inquire what degree of colour-blindness or defective form-vision in persons holding responsible positions at sea causes them to be incompetent to discharge their duties; and to advise whether any, and, if so, what alterations are desirable in the Board of Trade sight-tests at present in force for persons serving or intending to serve in the merchant service or in fishing-vessels, or in the way in which those tests are applied." There has been some criticism as to the constitution of the Committee, because several of the members also acted on an earlier Committee whose findings the present Committee would naturally defend. The report is a somewhat

colourless document, the chief recommendations being summarised as follows:

(i) That steps should be taken to ensure that when judicial inquiries into the causes of shipping casualties are being held, witnesses who give evidence as to the nature or position of coloured signals or lights should always be tested for colour and form vision.

(ii) That the approximate limits of colour defect compatible with efficiency should, subject to the limitations laid down, be considered provisionally to lie between some such values of the luminosity ratio as 1.15 and .85.

(iii) That the wool-test should be modified—

(a) by substituting a dark brown skein for the third (deep red) test-skein at present in use;

(b) by dividing the skeins into specified groups, one group for each test-skein, and requiring the candidate to divide each group into two parts, those which resemble in colour the test-skein and those which do not.

(iv) That both the lantern and the modified wool test be used in examining the colour-vision of all candidates.

(v) That it is unnecessary to re-examine for colour-vision a person who has passed satisfactorily both the lantern and the wool test.

(vi) That the 1914 standard of form-vision be adhered to for all candidates for certificates of competency.

(vii) That any officer, holding a certificate, whose visual acuteness in the better eye has fallen below half normal, be considered to be incompetent.

(viii) That steps be taken to impress upon the authorities of training-ships, parents and guardians sending boys to sea, and owners taking apprentices, the desirability of the eyesight of these boys undergoing an expert examination before they adopt the sea as a profession.

(ix) That, provided care is exercised in their selection, the local tests for both colour and form vision be left in the hands of the present type of examiners.

(x) That all examiners should receive a careful course of instruction in the methods to be adopted in applying the modified wool-test and the lantern-test.

(xi) That a distinction be drawn between "appeal" and "referred" cases of failure to pass the local colour-tests.

(xii) That an ophthalmic surgeon be added to the present body of examiners in appeal cases.

It may be noted that the members of the Committee included Mr. Edward Nettleship, F.R.C.S., Mr. J. H. Parsons, F.R.C.S., and Lord Rayleigh and four other F.R.S.s. The chief interest to chemist-opticians in the evidence lies in the fact that the following ophthalmic surgeons were examined: Dr. F. W. Edridge-Green, Dr. A. Freelaud Fergus, Dr. H. Lindo Ferguson, Mr. A. R. Galloway, Dr. Karl Grossmann, Dr. George Mackay, and Mr. C. Devereux Marshall. The question of colour-blindness bulks largely in the evidence, for not only did witnesses give evidence, but demonstrations of the methods of applying colour-tests were given before the Committee. Two boys who are more or less colour-blind were brought, and Dr. Edridge-Green showed that at least one of them who could easily pass the wool-test could be shown by the lantern-test to be dangerously colour-blind if his occupation involved the reading of red and green signal-lights. Dr. Edridge-Green stated his objections to the wool-test to be that the question of dark-adaptation of the eyes is not considered (the test taking place in the light); it is difficult to obtain the correct colours; the colours are liable to fade and become dirty in use; colour-blind persons can distinguish the green from the brown skeins; the degree of colour-blindness is not defined, and the test does not detect central scotoma. It should be remembered that colour-perception is quite distinct from light-perception. A normal man sees definitely six colours in the spectrum, those seeing fewer having various grades of colour-blindness. If portions of a spectrum are isolated the normal person can see eighteen monochromatic portions, but for practical purposes slight degrees of colour-blindness are not counted. A tetrachromic, for example, sees four colours in the spectrum—red, yellow, green, and violet: he does not regard violet and blue as distinct colours. It appears that colour-blind

persons can be coached to pass the wool-test, but Dr. Edridge-Green contends that his lantern-test cannot be evaded. An interesting fact brought out during the inquiry is that several well-known scientists are more or less colour-blind. Lord Rayleigh, it appears, has a shortening at the violet end of the spectrum, Sir William Ramsay and Sir J. J. Thomson have a difficulty in detecting yellow, while Dr. F. W. Mott described his colour-blindness in evidence. It may be mentioned that Sir William Abney is an opponent of the lantern-test because the glasses used are so very defective scientifically. He does not think that the lantern simulates actual conditions unless used at a two-mile range. The wool-test he regards as a valuable diagnostic method. It is evident that Sir William Abney's views were accepted by the Committee.

"The Board of Health."

A reference to the Board of Health in the *C. & D.*, August 3, index folio 191, has brought us an inquiry, What is the Board of Health, and does it still exist? It was a body constituted for five years by the Diseases Prevention Act, 1848, which was passed, along with other Acts dealing with public health, at a time when an invasion of cholera was threatening the country. The General Board of Health, to give it its full title, was entrusted with power to enforce sanitary measures throughout the country and to take other measures to aid in preventing and curing cholera. The latter portion of the Board's duties was carried out in part by the issue of "instructions" regarding the means of preventing the disease and treating it in its early stages. The first of these instructions embodied the formula of the well-known cholera and diarrhoea mixture associated with the name of the Board of Health. It was in the following form:

The following [remedies], which are within the reach and management of everyone, may be regarded as among the most useful—namely, 20 grains of opiate confection, mixed with two tablespoonfuls of peppermint-water, or with a little weak brandy and water, and repeated every three or four hours, or oftener if the attack is severe, until the looseness of the bowels is stopped; or an ounce of the cinchona compound chalk mixture, with 10 or 15 grains of the aromatic confection and from 5 to 10 drops of laudanum, repeated in the same manner. From half a drachm to a drachm of tincture of catechu may be added to this last if the attack is severe.

The medical authorities strongly objected to the Board of Health because it had no medical members, but only a doctor for consultation when required. The doctors also very freely criticised the remedies suggested, but in 1855, when a report was made by a Treatment Committee, it was established that of the many classes of remedies for cholera treatment with astringents (chalk and opium) was followed by the lowest percentages of deaths. When the period expired for which the Board of Health was constituted it was continued from year to year until on the passing of the Public Health Act, 1859, the powers were vested in the Privy Council, and the medical officer, who by this time had acquired a status on the Board, was employed by the Privy Council at a salary of 1,500*l.* a year. Upon the establishment of the Local Government Board in 1871 these medical functions were part of the duties transferred to it from other Government Departments. To the cholera visitation of 1848 we owe the establishment in this country of proper systems of sewage-disposal, improved water-supplies, and the first appointment of medical officers of health.

THE EXPORTS OF ALUM from Civitavecchia during 1911 were valued at 28,900*l.* which were absorbed by France.

Turpentine Standards.

By Ernest J. Parry, B.Sc., F.I.C., F.C.S.

THE adulteration of American turpentine is a question to which attention has repeatedly been drawn recently in the technical Press, and it undoubtedly exists to a very large extent at present.

The use of petroleum-products as adulterants is, as is well known, one of the commoner forms of sophistication, but fortunately this presents little difficulty to the analyst, on account of the wide difference in characters between the terpenes and the hydrocarbons found in petroleum-products. The adulteration, however, which is giving most trouble at present is the use of so-called "wood" or "stump" turpentine, which resembles the ordinary or "gum" turpentine so closely, especially when well rectified, as to make its detection far more difficult than is the case with petroleum-products. The United States Department of Agriculture last year issued suggested standards for pure turpentine, of which that for No. 1 or "standard" turpentine is the only one which need be referred to here. The suggested standards are as follows: Specific gravity at 20°=0.862 to 0.870; refractive index at 20°=1.4680 to 1.4760; 95 per cent. should distil below 170°. On polymerisation with sulphuric acid (38 times normal) the residue should not exceed 1 per cent. and should have a refractive index of 1.500 to 1.520. I have no particular objection to take to these figures, other than to say that a considerable amount of stump-turpentine may be present in an oil complying with them.

The close similarity in physical characters between pure gum-turpentine and the so-called stump-turpentine, therefore, renders it necessary that some further distinctive features shall, if possible, be taken into account, and the result of the examination of a very large number of pure and adulterated samples leads me to consider that the behaviour of the oil towards the halogen elements gives the most useful indications of admixture with wood or stump turpentine—which, by the way, must be so described in America, where it is not allowed to be dealt in as "turpentine" without proper qualification.

Both the iodine and the bromine values have been recommended in this respect, but the iodine-value is, in my opinion, the more useful of the two. Its value depends on the fact that the hydrocarbons present in wood-turpentine—probably on account of the method of treatment adopted in its manufacture—appear to be more saturated than those present in normal turpentine, and therefore absorb less iodine to form a fully saturated compound.

The iodine-value may be determined by either the Wijs or the Hübl method, and it is necessary that the method used should be stated, and the conditions of the determination kept constant. Useful indications are given by the determination of the iodine-value of the 10 per cent. left after distillation of 90 per cent. of the sample, since the highly unsaturated hydrocarbons appear to concentrate in the higher boiling fractions. The following processes may be used for the determination of the bromine-value: (1) One c.c. of the oil is dissolved in 5 c.c. of chloroform, and a 3-per-cent. aqueous solution of bromine added with shaking until a permanent coloration remains; the strength of the bromine solution is determined in the usual manner, and the amount combining with the oil can be calculated. (2) One c.c. of the oil is dissolved in 50 c.c. of absolute alcohol, and 5 c.c. of hydrochloric acid added. A solution of 28 grams of bromate of potassium and 100 grams of bromide of potassium per litre is then added until a permanent brown colour remains for one minute after well shaking. The bromine absorbed is calculated for 1 c.c., which can be reduced to the proper bromine number by dividing it by the specific gravity, say 0.86. So far as my experience goes, the following figures would form satisfactory standards for genuine American turpentine:

Specific gravity at 15.5°	...	...	0.862-0.870
Refractive index at 20°	...	...	1.4680-1.4730
Initial boiling-point	...	...	not below 154°-155°
Distillate under 160°	...	...	72-73 %
" " 170°	...	...	95-97 %
Bromine-value	...	...	not below 1.9
Iodine-value (Hübl, 16 hours)	...	...	360-375
" " (Wijs, 1 hour)	...	...	335-350
Iodine-value of last 10 % (Wijs, 1 hour)	...	...	not less than 350
" " (Hübl, 16 hours)	...	...	350

The iodine figures may require a little modification as one's experience becomes more enlarged in this direction.

I think that the examination of the refractive index of the higher boiling fractions may afford valuable information, but hesitate to give any figures until experience in this direction is somewhat wider than it is at present. The value of the iodine figures is indicated by the fact that wood or stump turpentine will often show an absorption of from 230 to 300, and the last 10 per cent. an absorption of about the same figure, or even less. I have made a careful examination of the numerous colour-reactions proposed for the testing of this oil, and I can say emphatically that none of them is of the least use, and cannot be relied upon when one is dealing with the rectified variety of wood-turpentine, although some of them are useful in dealing with the crude variety. But as the highly rectified variety is always used for admixture with ordinary turpentine, the tests in question are invariably useless.

Dealing briefly with the question of adulteration with petroleum-products, I would point out that it is a practical impossibility for any turpentine adulterated with petroleum of any kind to comply with the above-mentioned requirements. But if it is necessary to examine a given sample with a view to showing to what extent an oil is so adulterated, the following process will give excellent results. It is a modification of Armstrong's polymerisation process due to Eibner and Hue ("Chem. Zeit.," 1910, 643).

Fifteen c.c. of concentrated sulphuric acid (sp. gr. 1.84) is introduced into a suitable shaking burette, and 10 c.c. of the oil added in quantities of 0.5 c.c. at a time, with constant shaking. From fifteen minutes to one hour will be required for this operation, according to the amount of petroleum present. After the addition of the oil is complete the burette is thoroughly shaken, and sulphuric acid run into the burette until the latter is nearly full. After six hours the amount of oil rising to the surface is read off. If this does not exceed 2 c.c. the oil is probably pure. The polymerised products are now run off and treated with from 2 to 4 volumes of fuming sulphuric acid, and well shaken in a fresh burette. The ultimate residue should not exceed 0.3 per cent. if the oil is free from petroleum. Further, if the oil be free from the usual adulterants, this unpolymerised residue will have a refractive index of not less than 1.500, and not more than 1.520.

	(1) Pure American Turpentine	(2) Wood Turpentine	(3) 50 % each (1) and (2)	(4) "Petroleum" Turpentine	(5) 50 % each (1) and (4)
Specific gravity	0.866	0.873	0.869	0.808	0.838
Refractive index	1.4720	1.4745	1.4737	1.4490	1.4610
Initial boiling-point	155°	153°	157°	98°	99°
Distillate under 160°	74 %	61 %	68 %	48 %	62 %
" " 170°	94 %	78 %	84 %	75 %	82 %
Bromine-value	2.2	1.46	1.82	0.6	1.1
Iodine-value (Hübl)	372	264	321	9.0	190.5
" " (Wijs)	350	240	298	8.4	179
" " of last 10 % (Hübl)	360	251	304	9.0	184
" " (Wijs)	355	242	298	8.5	177
Refractive index of 1st 20 %	1.4719	1.4731	1.4728	1.448	1.4660
" " 2nd "	1.4700	1.4730	1.4720	1.449	1.4675
" " 3rd "	1.4712	1.4734	1.4722	1.4481	1.4721
" " 4th "	1.4712	1.4732	1.4721	1.4470	1.4721
" " 5th "	1.4781	1.4842	1.4821	1.4495	1.4735

The table above contains the figures for pure American turpentine, and for a number of samples

adulterated by myself with known quantities of given adulterants, and also of a few samples of adulterants themselves. Corresponding figures for a large number of pure American turpentines showed the following limit values for a large number of samples:

Specific gravity at 15°	...	...	0.862-0.870
Refractive index	...	...	1.4680-1.4730
Initial boiling-point	...	...	154°-155.5°
Distillate under 160°	...	...	72-74.5%
" " 170°	...	...	95-97.5%
Bromine-value	...	...	1.96-2.31
Iodine-value (Hübl)	...	...	360-375
" " (Wijs)	...	...	335-350
" " of last 10% (Hübl)	...	...	349-369
" " (Wijs)	...	...	350-365
Refractive index of 1st 20%	...	...	1.4700-1.4722
" " 2nd "	...	...	1.4700-1.4724
" " 3rd "	...	...	1.4710-1.4735
" " 4th "	...	...	1.4710-1.4740
" " 5th "	...	...	1.4780-1.4821

One word in reference to Russian turpentine—upon which I hope to publish a large number of figures shortly. There is no doubt that a very large proportion of the Russian turpentine arriving in this country is merely the high boiling fraction of the genuine turpentine, from which the lower boiling constituents have been removed by a refining process, for use as turpentine in Russia. The result is that little or no oil boiling at 155° to 160° is ever found in the Russian oil received in this country.

Professor Schindlemeyer, of Dorpat University, informs me that genuine Russian turpentine never contains less than 40 per cent., and rarely less than 55 to 60 per cent., of hydrocarbons distilling between 155° and 160°.

It is obvious, therefore, that most of the published figures for Russian turpentine are based on the examination of merely fractions of the pure oil, and that a drastic revision of figures is necessary. I propose to deal with this subject at a later date.

Sassy Bark.

DR. F. B. POWER and Dr. A. H. Salway, of the Wellcome Chemical Research Laboratories, publish in the "American Journal of Pharmacy" for August an account of their chemical investigation of authenticated bark of *Erythrophloeum Guineense*, G. Don. The material (commonly known as sassy bark, and in Congo vernacular as "Nkasa") was obtained from the Belgian Congo, West Africa. On continuous percolation with hot alcohol 72.9 kilograms of coarsely ground bark yielded 27.68 kilograms of dark red viscid extract. The investigation of this alcoholic extract gave the following results:

On subjecting 4.5 kilograms to steam-distillation no essential oil was obtained, the residual liquid in the distilling flask separating into a deep red aqueous portion (A) and a quantity of viscid resin (B), solidifying on cooling.

From the aqueous extract (A) 12 grams of a varnish-like solid was obtained by extraction with ether. This was redissolved in ether, shaking with ammonium-carbonate solution (which removed a small quantity of amorphous gummy matter), and then extracted with aqueous sodium-carbonate solution. The united sodium-carbonate extracts gave on acidification a lemon-yellow crystalline solid, which on recrystallisation from alcohol formed pale-yellow glistening needles (0.2 gram=0.0017 per cent.), melting and decomposing at 323°. On extracting 12 kilograms of alcoholic extract a further 0.5 gram of the substance was obtained. This was found to be *lutcolin* (C₂₇H₄₆O₆), a tetrahydroxyflavone first isolated from the so-called Dyer's weed (*Reseda Luteola*) and identical with digitoflavone occurring in digitalis-leaves.

The deep red aqueous liquid which had been completely extracted with ether was next shaken with successive portions of warm amyl alcohol. The combined amyl alcohol extracts did not deposit on concentration, but 25 grams of a nearly colourless amorphous precipitate was thrown down on adding toluene. This was not glucoside.

The aqueous liquid still retained a deep red colour and gave slight precipitates with alkaloidal reagents. After precipitating with basic lead acetate, filtering, and removing lead, the solution was found to contain a considerable quantity of sugar yielding an osazone melting and decom-

posing at 210°. The basic lead acetate precipitate, on suspending in water, decomposing with hydrogen sulphide, and filtering, yielded a solution evidently containing a large amount of *tannin*. Although on adding alkaloidal reagents or sodium carbonate precipitates were produced, nothing definite could be isolated. There was no indication of the presence of a glucoside.

The main portion of the aqueous liquid deposited on careful neutralisation with sodium carbonate a brown amorphous precipitate (about 15 grams). This dissolved readily in alkalis, but on warming with dilute hydrochloric acid the liquid gave no reaction with alkaloidal reagents. Attempts to prepare derivatives only led to resinous substances being formed. The aqueous liquid, after removal of the brown deposit, was made strongly alkaline with sodium carbonate, and repeatedly extracted with ether. On passing a current of dry hydrogen chloride through the bulked ethereal extracts the alkaloid was deposited as a viscid hydrochloride (about 1 gram=0.008 per cent.). On purification the alkaloidal salt was obtained as an almost colourless amorphous solid (0.6 gram), readily soluble in water or alcohol, and extremely hygroscopic, becoming gradually converted into a brown, transparent, glutinous mass. The free base, *erythrophleine*, was a colourless, amorphous solid, readily soluble in ether, ethyl acetate, or alcohol, but insoluble in water. It yielded a bright yellow picrate and an almost colourless gold salt, neither of which could be obtained in a crystalline state.

The resinous material (B) amounted to 1,600 grams (13.5 per cent.). On successive extraction this yielded to petroleum spirit 7.1 per cent., to ether 5.2 per cent., chloroform 0.7 per cent., ethyl acetate 5.2 per cent., and alcohol 80.0 per cent.

From the petroleum extract a *phytosterol* (C₂₇H₄₆O), melting at 130° to 133°, was isolated after saponification, as well as *crotonic*, *stearic*, *palmitic*, *oleic*, and *linolic acids*, and very small amounts of *ipuranol* (C₂₇H₄₆O₂(OH)₂) and *lutcolin*, a portion of the last-named being apparently present in the form of a glucoside.

Dr. H. H. Dale tested some of the above products physiologically. The original extract (1 gram=2.6 grams of bark) caused continuous vomiting and a marked slowing of the heart-beat when administered to a dog; 1 gram of the resinous material (=7.4 grams of bark) had much less effect, but caused some vomiting. A dose (representing 4 grams of bark) of the water-soluble extract (A) caused retching without actual vomiting, and had a distinct action on the heart. The amyl alcoholic extract of A (0.07 gram, representing 13.6 grams of bark) had no effect on injecting intravenously into a rabbit, nor had the brown substance (0.25 gram, representing 216 grams of bark), deposited on neutralising A with sodium carbonate, when fed to a dog. The alkaloidal salt (erythrophleine hydrochloride) and a commercial specimen of the salt gave similar results, the action being as described by previous observers. Given intravenously to a rabbit 0.001 gram causes marked slowing of the heart-beat; with 0.002 gram this effect is followed by secondary quickening of the heart-beat, paresis, trismus, and death in convulsions in about half-an-hour, and 0.005 gram killed a small rabbit in five minutes. The basic lead acetate precipitate appears to contain an appreciable amount of active substance, as it possesses the characteristic erythrophleine action to a marked degree when suspended in water and decomposed by hydrogen sulphide. The main portion of the aqueous liquid was not treated with basic lead acetate.

The preliminary tests indicated a much larger proportion of alkaloid in the bark than could be isolated subsequently, and it appears probable that some change had taken place during extraction. The nature of this could not be more precisely determined owing to the indefinite character of the base, which also precluded its further chemical study.

THE CARELESS USE OF MENTHOL APPLICATIONS to the nostrils in the case of children may lead to alarming symptoms. Laryngeal spasm may result in very young children.

ALUMINIUM PERBORATE is obtained by the action of boric acid, alkali, and aluminium salts in the presence of peroxide of hydrogen. It is in the form of a white powder, non-caustic and non-poisonous, and is only slightly soluble in water, the solution decomposing gradually. It is employed as a wound-dressing by reason of its astringent and bactericidal action.

MEDICAL GLEANINGS.

Picric Acid in Burns.

PICRIC-ACID SOLUTION has proved a valuable and in general a safe application in the treatment of superficial burns, but "The Lancet" refers to some cases in which fatal results followed its use. It is suggested that a warning of some kind should be given on the label of the solution which is often found in "first-aid" outfits.

Sugar in Heart-disease.

THE EMPLOYMENT OF SUGAR in cases of failure of cardiac muscle has been referred to in the *C. & D.* (December 30, 1911, index folio 959). Dr. Goulston, who discovered the value of sugar in these cases, emphasised the fact at the annual meeting of the British Medical Association that only cane-sugar should be employed—beet-sugar is unsuitable. Quantities of 4 oz. in solution per diem are prescribed.

Swallowing a Pin.

DR. DAVID SIME, writing to "The Lancet," tells how a little patient of his swallowed a pin, and that the mother had prepared "a large dose of some patent purgative" which, but for the father's intervention, would have been administered. The doctor was called in, and after concluding that the pin had gone down head foremost, ordered at once a large supply of bread-and-milk with a hard-boiled egg to encase the pin and protect the stomach and intestines. Bread and milk was continued next day as the sole food; the second morning a cup of milk and hot water, with one and a half teaspoonful of castor oil (the child was four and a half years). Two hours after a copious semi-solid motion was passed in which the pin was found imbedded.

The Uses of Allantoin.

DR. C. J. MACALISTER read a paper at the annual meeting of the British Medical Association, entitled "A Contribution to the Study of *Symphytum officinale*." He said that the utility of this drug in the treatment of ulcerative conditions and of burns has been confirmed by numerous observers who have referred to the way in which this ancient vulnerary cleans up the bases of septic and sloughing ulcers. It has been found to possess no toxic properties, and favours rather than inhibits the growth of organisms. Experiments on culture media containing 0.2 per cent. of allantoin do not in any way interfere with the growth of bacillus coli, staphylococcus, streptococcus, or the tubercle bacillus. Allantoin is found in those parts which are related to active growth, both in plants and animals. It is plentiful in the foetal allantoin, and in the comfrey rhizoma it is abundant in spring and autumn. There is evidence to show that the plant withdraws its allantoin from the rhizoma and utilises it for cell-proliferation. He referred to numerous experiments on hyacinth bulbs which show that the injection of 0.5 per cent. solution of allantoin into the bulb results in forcing the growth of the shoots, and especially of the flowers, while there was comparatively little leaf-growth. Control injections of ordinary water resulted in the plants growing better, but not so rapidly as those to which allantoin had been added. An attempt was then made to see whether allantoin has any effect on malignant cell-growth—cases having been recorded in which cancerous and sarcomatous growths have been benefited by treatment with comfrey. The results were unsatisfactory. Sarcomata treated with allantoin appeared, if anything, to grow more rapidly than before. It would, in fact, seem to be dangerous to give it in malignant cases. It has no power to produce a somatic cell from a malignant one. The evidence goes to show that allantoin is related to nucleic acid. Experiments with metaphosphoric acid in combination with allantoin have given good results in tuberculous sinuses and abscesses, when administered internally and hypodermically. Added to milk in cases of wasting and rickets in children it promotes growth and nutrition.

A New Use for Thyroid Extract.

DR. G. A. GIBSON, Edinburgh, in his address on "The Relations of the Circulation" before the British Medical Association, referred to the uses of small doses of thyroid extract in influencing growth, and said:

In youth it is common to find lack of growth in both sexes. Occasionally we find children, and, still more, youths, stunted in growth but excellent in form. One such will never, so long as memory lasts, leave the upper surface of my cerebral palimpsest. The son of one of my medical friends was, in his eighteenth year, 1 in. below 5 ft. in height. He had set his whole mind upon entering Woolwich, for which his one and only chance was just about six months ahead. The family turned to me in deep distress, as they felt that to obtain a growth of 4 in. in six months would be as great a feat as the addition of the proverbial cubit to the stature. By the employment of thyroid extract the youth grew 7 in. in six months, and, as he obtained one of the highest places in the Entrance examination for Woolwich, it was obvious that his cerebral functions had been in nowise disturbed by the treatment. Several instances of the same sort—not, however, quite so dramatic—have been under my care; to be quite frank, it must nevertheless be confessed that in some of these boys and girls even thyroid treatment absolutely fails to produce the desired effect. Another class of patient in whom we find thyroid extract invaluable consists of children and youths who manifest mild myxœdematous features—they are not for a moment, however, to be regarded as cretinoid. In many of these young people, along with satisfactory growth as regards height, there is rather too much corporeal bulk and rather too little cerebral energy. Under thyroid treatment they become more slender, and the sluggishness of the intellectual processes entirely disappears.

As the paragraph has been reproduced in the lay Press it is not unlikely that chemists will receive inquiries for thyroid tablets for stunted children.

Cod-liver Oil in Phthisis.

FROM "The Lancet" we take the following report of a paper at the annual meeting of the British Medical Association by Dr. O. T. Williams (Liverpool) on "Cod-liver Oil and its Action in Phthisis." After referring to earlier work in which he has shown the markedly beneficial effects of cod-liver oil on fat-absorption and nitrogen-absorption, Dr. Williams mentioned some further cases in which cod-liver oil undoubtedly increases nitrogen retention also. His experiments in conjunction with Dr. Maclean and Dr. Forsyth have shown that cod-liver oil has a definite action on the metabolism of phthisis. In cases under observation the increase in fat-absorption and in nitrogen-absorption at once diminished when the oil was stopped for a period. The evidence goes to show that cod-liver oil has some influence upon the fatty envelope of the tubercle bacillus, but he was unable to say whether this lessened the infectivity of the organism. With reference to predisposition to phthisis in the case of diabetics, Dr. Williams said he has found a relative increase of saturated fatty acids in the blood in this condition, and in this matter he mentioned experiments which Dr. Mildred Powell and himself have conducted, which tend to show that the unsaturated fatty acids have an inhibitory effect on the growth of the tubercle bacillus. Dr. Williams next referred to the high regard in which cod-liver oil was held by earlier writers, and compared the earlier statistics of Williams (1868) with Bardswell's more recent statistics. He has come to the conclusion that in spite of the discovery of the tubercle bacillus and the beneficial effects of recent discoveries, there has been no striking advance in the treatment of the disease. Dr. Williams next gave the results of an examination of the various cod-liver oils on the market. Facts were given to support the contention that the activity of the oil does not depend upon the presence of iodine or phosphorus. Indeed, a consideration of the methods of preparation of the oils examined has led him to believe—in confirmation of Charles's work—that the presence of small quantities of iodine, phosphorus, and various other bodies in cod-liver oil is due to decomposition. From observation and experiment Dr. Williams concluded that the therapeutic effect of the oil is largely due to the amount of unsaturated fatty acids it contains and not to the impurities referred to.

OPTICAL OBSERVATIONS.

By a Chemist-Optician.

These notes are in most cases supplementary to the information given in "The Chemist-Optician" ("C. & D." Office, 4s.), which is a treatise specially written for Chemists.

Atropine in Eye-diseases.

DR. MACTIER, before the Staffordshire Branch of the British Medical Association, in a paper on "The Indiscriminate Use of Atropine in Eye-diseases," appealed to all practitioners to use atropine with great care in eye cases, and in ordinary inflammations, where the iris is not involved, to have recourse to antiseptics rather than to mydriatics. He also suggested that homatropine, which can quickly be neutralised by the instillation of eserine, should be used for purposes of refraction in all cases of hyperopia where the age is more than twenty-five.

Binoculars at Sea.

THE REPORT of the Merchant Shipping Advisory Committee respecting the statutory regulations as to boats and life-saving appliances and other means of ensuring safety at sea, which was issued on August 16, contains the following regarding the use of binoculars by look-out men:

The suggestion was brought before the committee that look-out men should be provided with binoculars. They are of opinion, however, that, although binoculars are useful in ascertaining the precise nature of an object to which attention has already been called, they restrict the field of vision, and that consequently there is a danger that look-out men, if provided with binoculars, might fail to notice an object which would have been picked out with the naked eye. They accordingly consider the adoption of this suggestion inadvisable.

Mr. Laurence's New Book.

It is a good while ago since in these columns I referred to "General and Practical Optics" and "The Eye," two text-books produced by Mr. Lionel Laurence. These were written with a view of providing a series of books for students studying for the examinations of the Spectacle-makers' Company. A third book of the series has now been brought out under the title "Visual Optics and Sight-testing." It embodies the matter contained in the smaller book, "The Eye," so that now a student obtains in two volumes the essentials for the examinations referred to. The author modestly expresses the opinion in the preface that it "will be but natural" that he has not succeeded in his purpose. From this I must differ emphatically—the two books are classics, and likely to remain so for many years. "Visual Optics and Sight-testing," published by the author (21 John Street, Bedford Row, London, W.C.) at 10s. 6d., contains nearly four hundred pages, and consists of twenty-two chapters, the titles of which are as follows: (i) Elementary anatomy of the eye; (ii) Physiology; (iii) Vision; (iv) Preliminaries to sight-testing; (v) Hypermetropia and aphakia; (vi) Myopia; (vii) Astigmatism; (viii) Anisometropia; (ix) Heterophoria and strabismus; (x) Presbyopia; (xi) Spasm of accommodation and asthenopia; (xii) Subjective sight-testing; (xiii) Supplementary to sight-testing; (xiv) Colour and colour-vision; (xv) Peculiarities of vision; (xvi) Optometry and lens action; (xvii) Keratometry; (xviii) Retinoscopy; (xix) Ophthalmoscopy; (xx) The retinal image; (xxi) Ocular calculations; (xxii) Frames and lenses. It is not possible to review the book in detail, but it should be added that each chapter is a full exposition of the subject, and is dealt with in a scientific and complete manner. Indications of pathological conditions are given in accordance with the modern requirements of the optician, who is expected to be able to detect disease as well as to test sight. Altogether it is an excellent work well done.

Mirror-grinding.

THE grinding of the mirrors for reflecting telescopes was described in an interesting manner by Sir George Darwin in a lecture on Sir William Herschel before the Royal Institution. He first described the preparation of the

grinding-tools. Two blocks of iron are cast with the desired radius of curvature, the one concave and the other convex, and then turned and ground with emery until the surfaces fit each other exactly. The concave iron is the standard for regrinding the convex grinding-tools when they have become worn by use. In order to make a plane mirror three surfaces are ground two and two, as when interchangeable true planes must have been produced. Next, speaking of the figuring of concave mirrors, Sir George Darwin states that the roughly hollowed glass disc is laid on several layers of Brussels carpet centrally on a massive horizontal turntable. The convex iron tool is suspended by a universal joint from a lever, and it is counterpoised so that only a portion of the weight of the tool will rest on the glass when it is in use. A complicated system of cranks and levers is so arranged that the tool can be driven by machinery to describe loops or curves of any arbitrarily chosen size over the glass, and as these loops are described by the tool the turntable slowly revolves. In this way every part of the tool is brought into contact with every part of the glass disc in a systematic way. Emery-powder and water are supplied to the glass, and the tool is lowered gently on to the glass. The motive power is then applied, and the grinding continued for many hours until the preliminary rough depression has been hollowed to nearly the desired shape—i.e., that of the standard concave iron. For finer grinding a change of procedure is now adopted, and very fine powdered emery is used. Another convex tool is formed by grinding with the standard concavity; the working face of the tool is, however, now cut up into small squares by a criss-cross of narrow and shallow channels to secure an even distribution of the emery and water all over the surface. The grooved tool is now used for many hours, and the surface is tested at frequent intervals with a spherometer. The work ceases when it is no longer possible to detect errors of curvature in this way.

Polishing.

The next stage is polishing. The thickness of the layer of glass worn off in polishing is to be estimated in ten-thousandths of an inch, and can scarcely be detected even with the finest spherometer. For polishing the iron tool is discarded, and the work is carried on by hand. As lightness is essential, the tool is built up by a stiff lattice-work of wood with a continuous wooden working face. It is obvious that however carefully the face may be turned it cannot be made sufficiently true, and the requisite accuracy is obtained by means of the plastic properties of rosin or pitch. A number of squares of rosin about $\frac{1}{4}$ in. thick and 1 in. square are made, and these are glued in rows on the convex face of the wooden tool, with a narrow space intervening between each rosin square and its neighbours. The tool is then warmed slightly so as to soften the rosin a little, and it is then pressed lightly on to the glass disc. By means of this "warm-pressing" a nearly perfect fit is attained. Each of the rosin squares is then painted with hot melted wax. This is done because wax is softer than rosin, and affords a better working face. Finally, when the tool is quite cold, the surface of the glass is painted all over with very finely powdered rouge and water, and the tool is placed gently on the glass with some additional weight resting on it. It is left thus for several hours, but is moved slightly every ten minutes to ensure an even distribution of the rouge and water. By means of this "cold-pressing" a perfect fit is secured of the wax-coated rosin squares with the glass face. Cold-pressing has to be repeated every day before the work begins. The polishing is now carried on in much the same way as the grinding, but by hand instead of by machine power. The turntable can be made to tilt so as to bring the glass to stand vertically, instead of horizontally, and the disc is frequently tilted up so as to submit the surface to optical tests. These latter tests are far more searching than those with a spherometer, and enable the observer to detect an error in the radius of curvature of portion of the reflector of a hundredth of an inch.

PHOTOGRAPHIC NOTES.

By a Pharmaceutical Camerist.

Film-stripping.

FOLLOWING on the recommendation by Messrs. Lumière of a saturated solution of potassium carbonate for drying plates, a writer in the "Amateur Photographer and Photographic News" says the method is undoubtedly very successful, but it has a defect which may be turned to account. After a plate has been fixed and washed, it is soaked for three minutes in a saturated solution of potassium carbonate. On being removed it begins to dry, and can be wiped with a handkerchief without any risk, and a print immediately taken from it. But if the salt is not washed out afterwards, and the plate is put on one side, the whole film will come away intact. The advantage of this very simple process in the case of a broken glass is obvious, but unless the film is kept dry it will probably re-absorb moisture. It would therefore be well to remount it on a damp glass and carefully wash it free from potassium carbonate before storing. A print can be taken from the film if necessary before remounting.

Sepia Tones on Bromide.

A CORRESPONDENT of the "British Journal of Photography" recommends very warmly a bath of liver of sulphur (potassa sulphurata) for obtaining sepia tones on bromide prints. The manner of making the discovery is not without interest to chemists. He states that he was engaged one day in giving a dog a Shirley's sulphur bath, and, attracted by the aroma of this bath, he thought he would see what effect the lukewarm solution had on a bromide print. He was very surprised to find the print almost immediately changed to a nice sepia colour. His next step was to find out if possible the constituent of Shirley's bath, and he came to the conclusion that it contains liver of sulphur. On purchasing some of this chemical he found it answered the same purpose, and that it is cheap. The narrative states further that 2*dr.* an ounce was paid for the salt. The strength of the bath seems to be immaterial, "a piece of the liver of sulphur the size of a pea being ample for six or eight ounces of water." The print, after fixing, is rinsed, placed in a formalin bath to prevent blistering, and then placed in the toning bath at 100° F. A little Schlippe's salt added to the bath improves the tone, but slows the process. Subsequent writers stated that the process is not new, one asserting that the method has been a trade secret of several commercial houses for some years. An improved hardening bath is given as:

Alum	...	...	...	...	1 oz.
Chrome alum	...	...	...	...	$\frac{1}{2}$ oz.
Water	...	...	...	...	20 oz.

The prints are placed in this for five minutes, washed, and transferred to the warm toning bath made as follows:

Liver of sulphur	...	...	...	1 dr.
Water	...	...	...	20 oz.
Solution of ammonia	...	...	...	a few drops

A final washing follows as soon as the required tone is obtained.

Views on Chemists.

It is always interesting to know what customers think of chemists, although sometimes the opinions are unjust. Here, for instance, is a point of view presented by "Photography":

We would add the caution to avoid buying chemicals for photography from chemists who do not specially cater for photographers. It is an excellent thing for the seller of photographic chemicals to have had a chemist's training, but unless he also knows something of photography and photographic literature, the chemist's training may prove a snare. A glaring case of the kind was brought to our attention quite recently, when a chemist supplied a strong solution of caustic soda in execution of an order for "sulphite lye" for autochrome work. Needless to say, the solution proved useless, but not until considerable expense for spoilt autochrome plates had been incurred.

Fortunately, the number of chemists without any knowledge of photography is very few. To those chemists

who have never taken up photography as a hobby my advice is that it is "never too late." I noticed also the following paragraph in the same paper, which it is as well photographic chemists should consider:

There can be no doubt that the touring photographer who does not carry with him a sufficient supply of the plates to which he is accustomed handicaps himself considerably by relying upon unknown and untested sources for his supply. Even if he works one of the most popular of sizes, he may find himself where the make to which he is accustomed is not obtainable at all, or it may be in so little demand that the stock is stale and possibly damaged. Of course, there are exceptions. The big seaside places and well-known and popular holiday-resorts are generally well supplied with up-to-date and reliable dealers; but unless one is certain to limit oneself to such places, and even then if make or size is at all unusual, ample supply should be taken. It is a good plan, when the quantity required has been decided, to get a box from one's regular dealer for trial purposes, asking him to put aside the required quantity, all bearing the same batch number, until the trial box has been tested and found satisfactory. In this way, one not only knows that the supply is in good condition, but also that they are all of one making, a fact which will certainly tend towards uniformity and ease of working when we come to develop.

As I stated years ago, the secret of success in a dealer in photographic goods is rotation of plates and paper. Complaints of stale plates spoil business.

TRADE NOTES.

THE NOTTINGHAM SCHOOL OF PHARMACY has been removed by the Principal, Mr. S. Royce, Ph.C., from 13 Victoria Street to 49 St. James Street, Nottingham.

Zi-Co is the name given by Messrs. H. E. Stevenson & Co., 122 Great Suffolk Street, London, S.E., to a zinc compound employed as a substitute for white lead. The advantages claimed for Zi-Co are that it is cheaper than white lead, is unaffected by sulphuretted hydrogen, and imparts permanency when ground with delicate colours. As Zi-Co consumes rather more oil than white lead durability is increased, and the paint dries with a fine gloss.

P.A.T.A. PRICES.—The additions to the Protected List during August are: Anax food, Cystopurin, Ingram's Agrippa teats and valves, Jeyes' bath-soap, John Bell, Hills & Lucas's additional preparations, Kimoc medicines, Kiope remedies, Martindale's "Extra Pharmacopœia," fifteenth edition, Parke, Davis & Co.'s additional preparations, Tidman's sea-soap. The following have been removed from the list: Bayer's Afridol soap, Gynoval and Spirosalin, Lesquendien's preparations, Ozo inhalers and refills.

INDICATOR WORDS in telegraphic addresses are being allotted by the Postmaster-General with a view to accelerating still further the delivery of telegrams. The indicator word is telegraphed free of charge. The British Drug Houses, Ltd., 22 to 30 Graham Street, City Road, London, N., have, in accordance with this new arrangement, the telegraphic address "Tetradome, Isling, London." That of Messrs. H. E. Stevenson & Co., 122 Great Suffolk Street, London, S.E., is "Eklips, Sedist, London." The address of Schliemann's Oil and Ceresine Co., 23 Leadenhall Street, London, E.C., is "Manschlie, Led, London."

"SUBROSA" is a new artificial otto of rose put on the market by Messrs. Thomas Kerfoot & Co., Bardsley Vale Mills, Bardsley, Lancs. The special claims for the product are that it possesses the true rose-odour and is as diffusive and lasting as the real otto. The firm suggest that pharmacists should make comparative tests with otto of rose, Subrosa, and any other synthetic otto by placing drops of each on a small square of filter-paper and comparing the odours at intervals until the end of the third day. They claim that no other artificial preparation will stand this drastic test so well as Subrosa, which certainly has a lasting and fragrant odour. Subrosa costs 10s. per oz., and by its use (20 minims to one pint of water) a superior triple artificial rose-water can be made at the cost of 5*d.* per pint.

TRADE REPORT.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities. Retail buyers cannot, therefore, for these and other reasons, expect to purchase at the prices quoted here.

42 Cannon Street, London, E.C., August 22.

WITH business on a small scale in practically all markets, there are few interesting features to note during the interval. Two reductions of 5s. each in quicksilver this week have been followed by 1d. decline in mercurials. Opium has advanced in primary markets as the result of American and Japanese buying on a fairly large scale. Morphine is therefore in better sentiment. Oxalic acid, bleaching-powder, and saltpetre are firm markets. Potash and soda prussiates are dearer, and ammonia sulphate is firmer. Quinine is quiet, pending the Amsterdam bark-auction. Star-anise oil is firm. American peppermint oil is expected to yield fully on average crop, and buyers prefer to wait; on the other hand, reports as regards the English crop are disquieting as the result of heavy rains. In the private market for drugs, cevadilla, guinea-grains, and valerian are cheaper; condurango is dearer. Lycopodium, Russian cantharides, and kola are firm. Menthol is quiet on spot, but with a fair demand for forward shipment. Turpentine is lower. The principal changes, including those recorded at the drug-auction, are as follows:

Higher	Firmer	Easier	Lower
Ammonia sulphate	Cardamoms	Camphor (Jap. slabs)	Calumba
Angostura bark	Condurango	Dragon's-blood	Cevadilla
Buchu	Ginger (African)	Elecampa	Ipecacuanha
Cod-liver oil	Morphine	Peppermint oil (Jap.)	Guinea grains
Opium	Orange oil		Mercurials
Potash prussiate	Resin		Quicksilver
Soda nitrate			Turpentine
Soda prussiate			Valerian

London Markets.

ANGOSTURA BARK.—With small stocks on the Continent, the price of true is dearer at 55s. per cwt. c.i.f.

ANISEED sells steadily at 25s. 6d. to 26s. per cwt. for ordinary to fair Russian on the spot.

BELLADONNA-ROOT.—For September shipment a parcel of good-testing (0.49 per cent. total alkaloids) is offered at 35s. per cwt. c.i.f.

BENZOLS are scarce and firm, 50-per-cent. prompt offering at 11d. to 11½d. naked and 90-per-cent. prompt 1s. 1d. London. There has been a strong inquiry for forward delivery, not only for next year, but for 1914 and even later.

BLEACHING-POWDER of foreign make is quoted at 5l. 5s. per ton ex wharf, London, being firm and scarce.

CALABAR BEANS.—From Hamburg a brisk demand is reported, and one holder has cleared at the equivalent of 1s. 1d. per lb.; to arrive, further lots could probably be done at the same price.

CANARY-SEED continues in slow demand, but prices are unchanged at 57s. 6d. per quarter for ordinary and 65s. to 66s. for good Morocco. Spanish has been sold at 80s. to 82s. 6d. for good medium quality.

CANTHARIDES.—The Hamburg market is bare of Russian at the moment, and for Chinese in lots of at least five cases, 1s. 7½d. net c.i.f. is quoted.

CARAWAY-SEED is firm at 33s. to 34s. per cwt. for fair to good Dutch on the spot. The new crop is said to be small and inferior in quality, and higher prices are expected later in the year.

CARBOLIC ACID continues quiet, 39° to 40° C. crystals offering at 7¼d. and 35° 7d. per lb.; for the best medicinal quality (39° to 40° C.) ice crystals in 2½-cwt. drums and overcasks 8d. to 8½d. is quoted. Crude 60 per cent. is 2s. 8d. per gal. on the East Coast and 2s. 7d. on the West Coast.

CEVADILLA is offered at cheaper rates from the Continent—viz., 65s. per cwt. c.i.f. for at least 5-cwt. lots.

CHAMOMILES.—The bulk of what is offering from Belgium is second pickings, which are available at about 78s. per cwt. Heavy rains prevail in the gathering districts.

CLOVES.—At auction 16 bales Zanzibar were bought in at 7½d., which is the price asked privately: to arrive 7½d. has been paid for October-December, but sellers subsequently at 7½d. and January-March at 7½d. c.i.f. d.w.

COD-LIVER OIL.—The firmer tendency recently noted is well maintained; in fact, some agents are asking still higher rates, 63s. to 68s. c.i.f. being quoted for finest non-congealing oil, and business is reported at the lower figure. Our Bergen correspondent also reports that business has been done in finest Lofoten oil at 63s. c.i.f. The statistics given last week refer to the exports for the whole of Norway from January to July and were 25,885 barrels.

CONDURANGO is higher, Hamburg asking 42s. 6d. per cwt. c.i.f. for at least 5-cwt. lots.

COPPER SULPHATE is firmer at 24l. 7s. 6d. for ordinary Liverpool brands for prompt, and 25l. 12s. 6d. for January-April.

CORIANDER-SEED.—Old crop Morocco is slow of sale at 11s. to 12s. per cwt. according to quality.

CUMIN-SEED is unchanged at 22s. per cwt. for Morocco, but no business is reported.

ELECAMPANE is offered at lower prices owing to the proximity of new crop; for at least 5-cwt. lots, 30s. per cwt. c.i.f. is quoted.

ELEMI is offered at 48s. 6d. per cwt. c.i.f. for prime white in at least 10-case lots.

FENNEL-SEED has been sold at 22s. 6d. per cwt. for ordinary East Indian.

FENUGREEK-SEED is firm at 8s. 9d. to 9s. 6d. per cwt. for common to good Morocco.

GENTIAN is offered at 27s. per cwt. on c.i.f. terms for at least ½-ton lots.

GLUCOSE is still very scarce on the spot, with irregular prices quoted, and the stiffening market for American corn has added to the acuteness of the position.

GUINEA GRAINS are cheaper, with spot sellers at 60s. to 62s. 6d. per cwt.; for shipment from the Continent in at least 5-cwt. lots rather less would be taken.

HOMATROPINE.—The makers' quotations appear to have undergone an advance of about 1s. per gram.

KOLA.—African have been selling well lately, and for natural sound halves 4¾d. per lb. c.i.f. is quoted for shipment from the Continent.

LAVENDER OIL.—Best French remains very firm and scarce at about 16s. per lb. The unpropitious weather is stated to have affected the yield of the new crop.

LEMON OIL.—Quotations in Sicily are still tending upwards, prompt shipment offering at 7s. 10d. c.i.f. and December-March at 6s. 5d. c.i.f.

A Palermo advice dated August 17 states that the market for prompt oil remained unchanged, with a sustained business at full prices for many consuming places, especially Germany. It appears that the small available supply abroad gives occasion to this hand-to-mouth business, the orders being regular. For new crop the demand from abroad has been less urgent, but the position is by no means easier, sellers being reserved, and asking full prices for January-March or January-April delivery. The only new feature is that a few contracts were made to local buyers for delivery from May forward, a premium of 3 per cent. being paid against prices for earlier deliveries; position remains firm at unchanged figures, the quotation for last crop being 7s. 8d. and new crop 6s. 6½d. c.i.f. London.

LINSEED has fluctuated slightly, but good quality is unchanged at 67s. 6d. to 70s. per quarter.

MENTHOL.—Privately the market is easier, with spot sellers at 26s. 6d. per lb. for Kobayashi. In forward positions a fair business has been done, including September-October in combination with oil at 28s. 9d. per lb. for Kobayashi-Suzuki. A cable has been received from Kobayashi offering to sell at 31s. c.i.f. for October-November shipment. In the drug-auction a case of Kobayashi (contents apparently sound, wrappers slightly stained) sold without reserve at 26s. 4d., and a case of good fair Kobayashi crystals, also without reserve, sold at 26s. 7d., being cheaper. Two cases of Suzuki offered under usual conditions were bought in at 28s., a bid of 26s. 9d. being refused. To-day October-November has been sold at 22s. c.i.f. for Kobayashi.

The exports from Japan during June 1912 amounted to 3,989 kin, valued at 49,641 yen, against 2,201 kin, valued at 17,930 yen, in 1911. During the six months the exports have been as under:

	1910	1911	1912
Kin ...	54,622	56,906	74,101
Yen ...	282,089	409,373	791,398

In other words, the shipments this year represent 1,646 cases, against 1,264 cases last year.

The exports of peppermint oil from Japan during June were 6,158 kin, valued at 22,521 yen, against 2,358 kin, valued at 8,940 yen, in 1911. The six months' exports have been:

	1910	1911	1912
Kin ...	86,285	76,349	97,038
Yen ...	263,840	255,672	349,504

MERCURIALS.—Following on the reduction in quicksilver, the makers of mercurials have reduced their prices by 1d. per lb., and now quote assorted lots of below 2 cwt. as follows: White precipitate 3s. 4½d., corrosive sublimate 2s. 9d., calomel 3s. 1d., red precipitate 3s. 4½d., yellow oxide B.P. 3s. 7d., and white sulphate 2s. 9d.

MORPHINE.—As the result of higher prices paid for opium in primary markets, makers of morphine salts are nominally firmer in their ideas, quoting from 10s. to 10s. 3d. per oz. for hydrochloride powder.

OILS (ESSENTIAL).—*Star-anise* is firm on spot at 6s. to 6s. 1d., business having been done at the higher figure. *Cinnamon-leaf* oil is steady at 2½d. per oz. on spot, and a limited quantity of *Citronella* is offered at 1s. 7d. to 1s. 7½d. per lb. on the spot for Ceylon. *Lemongrass* is steady at from 4½d. to 5d. per oz. on spot. One of the English *Peppermint-oil* distillers in the provinces reports on August 19 that the conditions prevailing during the past thirty days have been extremely detrimental to the yield. The excessive rains have tended to cause rust in the young plants, and unless the weather quickly turns warmer the yield will be barely two-thirds of original expectations. Many of the fields have been under water for a full week, but the land has drained itself well, and the damage will not be so severe as was thought a fortnight ago. The quality of the oil so far distilled is equal to any of previous years. As regards American tin oil, buyers are waiting the results of the crop, the news in regard to which continues favourable. H.G.H. is still quoted 15s. 6d. London terms, and Japanese 6s. spot for Kobayashi. In the drug-auction ten cases Japanese (Kobayashi) sold without reserve on account of whom it may concern at from 5s. 5d. to 5s. 8d.

OPIUM.—Dearer. Cables to hand from Smyrna announce sales amounting to about 100 cases, chiefly on American account, at rising prices; purchases have also been made by the Japanese Government and speculators. Up to 19s. to 20s. per lb. c.i.f. has been paid for 11 per cent. Turkey druggists'. On the spot holders of good Turkey druggists' ask 21s. 6d. to 22s. In "soft-shipping" descriptions 23s. c.i.f. has been paid for Tokats.

A Smyrna correspondent writes on August 9, reporting a rather active week, the sales amounting to 98 cases, 28 of which were for Interior and local speculators, and the balance for the consuming markets. The last prices paid are as follows: For Yerli selected old or new, 20s. 3d.; Karahissar extra 1910 to 1911 crop, 19s. 3d.; ditto, this season's yield, 18s. 9d.; mixed common grades, 15s. 6d. to 17s. The market, however, closes firm at above

quotations, with buyers but very few willing sellers. The arrivals in Smyrna amount to 798 cases, against 333 cases at same date last year.

A Constantinople correspondent writes on August 16 that the sales for the week amount to 20 cases druggists', at from 250 to 264 ptrs. per oke, and six cases Malatia at 270 to 280 ptrs. During the same period about 30 cases were sold in Smyrna, of which 20 were for speculators, at 165 to 170 ptrs. per tcheki. Market shows a rising tendency, but the situation is puzzling. There is very little offering on the spot at reasonable prices, added to which the folly of speculators has driven up prices; all this makes business increasingly difficult. The arrivals in Constantinople amount to 730 cases, against 402 cases; these comprise 487 druggists', against 318; 76 "soft," against 84; and 167 Malatia. The stock is 626 cases, against 350, and comprises 427 druggists', 74 soft, and 125 Malatia.

ORANGE OIL is firmer in primary markets, sweet for prompt shipment offering at 8s. 2d. and December-March at 7s. 10d. c.i.f.

A Palermo advice dated August 17 states that prompt oil is neglected, but for new crop there are more buyers than sellers, and prices have advanced, while business is difficult to effect. *Sweet* of last crop is quoted 8s. 5d. c.i.f., new crop 7s. 8d. c.i.f.; *bitter* of last crop 8s. 6d. c.i.f.

ORRIS.—Judging from Italian advices, there does not seem much prospect of lower prices for Florentine, the crop, it is said, being about 100 tons less than last year, while there was little left over.

OTTO OF ROSE.—Bulgarian advices report the market as "excited," and quotations are given "without engagement," which acts as an impediment to business. Quotations are from 62s. 6d. to 67s. 6d. per English oz., according to brand; we understand some quantity has been sold at about the lower figure. Supplementing the above quotations we may recall the fact that early in July another distiller quoted 105s. per Turkish oz., less 2½ per cent. (equal to 90s. 6d. per English oz. net), and this quotation still holds good. It may also be mentioned that whereas last year's crop was only 2,200 to 2,700 kilos. (say even 3,000 kilos.), as much as 4,700 kilos. was exported.

OXALIC ACID is very scarce on the spot, the value being 3½d. per lb. ex wharf.

POTASSIUM PRUSSATE has advanced a further ½d. to 3½d. per lb., to 5½d. to 6d. for foreign yellow. *Sodium prussate* is 1d. per lb. dearer at 4d.

QUICKSILVER has been reduced twice this week, by 5s. per bottle on each occasion, the leading importer quoting 7l. 15s. per bottle, and in second-hands 7l. 13s. is quoted. Mercurials are also lower.

QUININE has been quiet, pending the Amsterdam bark sale, previous to which there were second-hand sellers of German at 9½d. per oz. in limited quantity.

The exports of "quinine, quinine salts, and combinations" from Germany during the six months ending June, for 1910 to 1912, were as follows:

	1910	1911	1912
Kilos ...	114,900	100,400	107,100
Marks ...	2,463,000	2,434,000	2,789,000

SALTPETRE is firm with a hardening tendency at 26s. per cwt. for refined in kegs and 25s. in barrels for English make, German being quoted 22s. and 21s. 6d. respectively.

SENEGA.—For August-September shipment 2s. 7d. per lb. c.i.f. London is asked, while another quotation is 2s. 7½d. c.i.f.; spot is 2s. 9d. net.

SHELLAC.—Steady, with a quiet demand on the basis of 63s. to 64s. for fair TN orange, and for September-October shipment 63s. c.i.f. is quoted. Futures are easier.

SODIUM NITRATE has advanced a further 1½d. per cwt. to 11s. 6d. for ordinary and 11s. 9d. for refined; Liverpool is also 1½d. dearer at 11s. 3d. and 11s. 6d. respectively.

TURPENTINE is about 6d. per cwt. cheaper on the week, closing at 31s. 6d.; a good business has been done forward; Liverpool is quoted 32s. 6d.

VALERIAN.—For September-October shipment of this season's crop from Hamburg 35s. per cwt. c.i.f. is quoted for at least 5-cwt. lots.

WAX, JAPANESE.—Sales for August-September and September-October shipment are reported at 44s. 1½d. c.i.f.

London Drug-auctions.

Commercial Sale-rooms, Mincing Lane, Aug. 22.

The auctions were resumed to-day after a month's interval, when a much better demand than usual was shown. Cape aloes opened firm, but were afterwards barely steady. Curaçao in cases and Zanzibar sold without change. Sumatra benzoin sold at steady prices, and for round buchu, which is scarce, the limits have been advanced. Cardamoms sold at slightly irregular rates, but generally dearer on the whole. Calumba, which has been arriving freely, sold at very low prices, but the quality is mostly indifferent. Good Ceylon ecca-leaves were steady. Re-boiled dragon's-blood brought easier prices. Gamboge has been sold privately. Honey was in good demand and was generally a firm market, especially for Jamaica. Matto Grosso ipecaeuana was lower. Japanese peppermint oil and menthol were slightly easier, and for rhubarb there was very little demand. Grey Jamaica and native sarsaparilla sold at fully previous prices, in spite of the exceptionally large quantity offered. Tinnevely senna of the new crop was rather easier, and more demand was shown for Alexandrian. Beeswax was quiet. The following table shows the quantity of goods offered and sold:

Offered	Sold	Offered	Sold
Aeonite (Jap.).....	10 ... 0	Kamala	4 ... 0
Agar-agar	10 ... 0	Kino	25 ... 0
Aloes—		Kola	25 ... 0
Cape	80 ... 80	Laurel oil	5 ... 0
Curaçao.....(cs.)	12 ... 12	Lavender-flowers	19 ... 19
Socotrine	10 ... 0	Lime-juice	45 ... 5
Zanzibar (cases)	5 ... 5	Lime oil	2 ... 0
Ammoniacum	7 ... 0	Liquorice-root	60 ... 0
Annatto-seed	18 ... 0	Mangrove-bark ...	271 ... 0
Balsam tolu	4 ... 0	Mastich	2 ... 0
Benzoin—		Menthol.....	4 ... 2
Palembang	40 ... 0	Myrrh.....	8 ... 0
Sumatra	221 ... 42	Olibanum	175 ... 0
Buchu	27 ... 8	Opium .....(pkgs.)	1 ... 0
Calumba	577 ... 175	Orange-flower	18 ... 0
Camphor—		Orange oil	5 ... 0
Jap. ref. (slabs)	103 ... 100	Oranges ....(dried)	25 ... 0
Cannabis indica ...	10 ... 3	Orehella-weed.....	91 ... 0
Cardamoms & seed	318 ... 255	Peppermint oil	
Cascara sagrada ...	212 ... 0	(Jap.)	10 ... 10
Cascarilla	1 ... 1	Quincee-seed	2 ... 2
Cassia fistula	18 ... 18	Rhapontica	33 ... 11
Cassia oil	3 ... 0	Rhubarb (China)...	66 ... 6
Chiretta.....	149 ... 0	Rose oil .....(pots)	2 ... 0
Cinchona	11 ... 0	Saffron	1 ... 0
Cinnamon oil	18 ... 0	Sarsaparilla—	
Coca-leaves	116 ... 70	Grey Jam.	60 ... 43
Cod-liver oil	4 ... 4	Honduras	11 ... 0
Colocynth-pulp	8 ... *4	Native Jam.	29 ... 26
Copaiba	10 ... *10	Senna and pods—	
Cowhage ... (oz.)	1,000 ... 0	Alexandrian.....	119 ... 66
Croton-seed	2 ... 2	Tinnevely	290 ... 280
Cuttlefish-bone ...	134 ... 0	Squill	5 ... 0
Dragon's-blood.....	25 ... 19	Stieklae	197 ... 0
Elaterium ... (box)	1 ... 0	Tamarinds	216 ... 3
Ergot	8 ... 0	Tonka-beans	1 ... 0
Eucalyptus oil.....	93 ... 14	Tragacanth	53 ... 53
Galls	1 ... 2	Turmeric	914 ... 54
Gamboge	17 ... *8	Vermilion	5 ... 0
Gum acacia	145 ... 0	Wax (Bees)—	
Honey—		East African.....	4 ... 0
Cuban	22 ... 22	East Indian	34 ... 19
Hayti	13 ... 13	Jamaica	25 ... 10
Jamaica	417 ... 379	Madagascar	121 ... 0
N. Zealand	11 ... 11	Morocco.....	3 ... 0
St. Lucia	41 ... 0	Mozambique.....	150 ... 0
Ignatius beans ...	2 ... 0	Spanish	3 ... 0
Ipecauanha—		West Indian	2 ... 2
Matto Grosso ...	17 ... 17	Zanzibar	38 ... 0
Minas	15 ... 0	Wood oil.....(drms.)	50 ... 0
Jalap	10 ... 0		

* Sold privately.

ALOES.—Cape opened firm but closed barely steady, 57 cases (Mossel Bay) selling as follows on 20-per-cent. tares, including good bright hard firsts, 40s. to 40s. 6d.; good seconds, part slightly drossy, 37s. 6d. to 38s. 6d.; fair seconds, slightly soft and dull, 35s. 6d. to 36s. 6d.; soft and drossy seconds, 35s. to 34s.; ordinary livery, 33s.; dull hard, 32s. 6d.; inferior soft and dull, 28s. 6d. to 29s.; soft and drossy mixed with dirt, 27s. per cwt. Twelve boxes Curaçao sold at 60s. for fair liver, 47s. 6d. subject for dull livery, part capey, and 50s. for middling dullish liver, the latter without reserve. Five cases of Zanzibar sold at from 60s. to 62s. 6d. per cwt. for hard dry liver. Ten kegs soft pasty Socotrine were offered at 62s. 6d.

BENZONIN.—Sumatra met with a fair demand at steady rates, including ordinary seconds with false packed ends at 6l. to 6l. 5s. and middling seconds at 7l. 5s. per cwt.

BUCHU.—Although 27 packages offered, only two good green round offered, for which the limit had been raised to 7s., but they did not sell. Three bales of genuine green longs sold at 3s. 5d., and a bale of longs with chopped stems sold at 2s. 8d.; a bale of stalky long-ovals realised 2s. 1d., and three bags of mixed long-ovals were taken at 1s. 10d. A bid of 5s. 11d. was refused for round stalky green, and the limit on ovals was from 1s. 11d. to 2s. 2d. per lb. Privately a good business has been done in round leaf at 5s. 6d., and it is said there are not now more than ten bales in first-hands.

CALUMBA.—Rather lower. A large supply of mostly indifferent quality was offered and partly sold, including 165 bags of ordinary small to bold sorts at 14s. to 16s., fair natural sorts 17s. subject, stemmy sorts 15s. subject; sea and country damaged went at from 10s. to 14s. per cwt. Ten bags of small to bold fair yellowish washed sold at 20s., and a lot of 45 bags small to bold yellow washed and picked was held at 45s.

CAMPBOR.—A lot of 100 cases Japanese refined 2½-lb. slabs sold without reserve at 1s. 5½d. to 1s. 5½d., no discount or allowances, being easier. Privately the market is quiet, with sellers of slabs for November-January shipment at 1s. 6d. c.i.f.

CANNABIS INDICA.—The price for fair Bombay tops remains at 5s. Three bags of common partly loose and roll Mozambique, partly sea-damaged, sold without reserve at 5d. per lb.

CARDAMOMS met with good competition at occasionally irregular, but generally dearer, prices, the following rates being paid. Ceylon-Mysore, extra bold dullish to pale, 5s. 2d. to 5s. 8d.; good bold dullish to pale, 4s. 8d. to 5s. 1d.; medium and bold ditto, 4s. 4d. to 4s. 8d.; small pale ditto, 4s. 2d. to 4s. 3d.; tiny, 3s. 7d. to 3s. 11d.; Ceylon-Malabar, small and medium brown, 3s. 5d.; bold splits pale, 4s. 4d.; medium splits, 3s. 4d. to 3s. 9d.; small splits, 3s. 7d. to 3s. 8d.; fair seed, 4s. to 4s. 1d.; ordinary part split, 3s. 6d. to 3s. 7d. per lb.

CASCARILLA.—A single bale of lean twiggy—all that offered—sold at 72s. 6d. per cwt.

CASSIA FISTULA.—Two parcels, comprising 18 cases from the West Indies, sold at from 25s. 6d. to 26s. 6d. per cwt. for fair quality.

CHIRETTA was largely offered, but nothing sold, fair quality being obtainable at 6d. per lb.

COCA-LEAVES were steady for Ceylon-Huanuco, 64 bales selling at 11d. to 1s. for fair greenish stout, and 10d. for brownish. Two bales of Java of Truxillo character sold at 3d. per lb. for greenish broken, and four cases of middling greenish Ceylon-Huanuco sold at 7d. per lb.

COPAIBA.—Ten bales of Para balsam lying in Liverpool have been sold privately, the quality being clear to cloudy.

CROTON-SEED being scarce, the two bags offered brought the high price of 77s. per cwt., subject, for fair bright seed.

DRAGON'S-BLOOD was in demand, 19 cases of fair reboiled Singapore lump selling at from 11l. 10s. to 11l. 12s. 6d., the bulk at the higher figure, and the pickings from same realised 6l. 10s. per cwt. Two cases of common bag-shaped lump were limited at 5l. 5s., and four cases of fair reed at 8l. per cwt.

EUCALYPTUS OIL.—A lot of 93 cases offered, of which 14 sold at 1s. 5d., the oil testing 78 per cent. eucalyptol. 74 per cent. was limited at 1s. 4d. and Amygdalina at 11d. per lb. The bulk of the parcel offered bore traces of having been badly "worked." The colours of the oil varied from very pale to very brown, but the broker announced that he always sold eucalytus oil just "as it is" and "knew nothing about the colour," although it did vary. These remarks appear to have arisen from the fact that a buyer recently bought a parcel in auction from a sample of oil pale in colour, but what was actually delivered from the bulk of the same parcel proved to be dark in colour.

GAMBOGE.—Eight cases of partly blocky Siam pipe of good orange fracture catalogued for sale had been sold privately at 14*l.* 5*s.*

HONEY.—Jamaica met with a brisk demand at generally firm prices as follows: Jamaica, good amber liquid and part setting, 34*s.* 6*d.*; good bright liquid and setting, 31*s.*; fair palish liquid, 28*s.* 6*d.* to 29*s.* 6*d.*; fair brown liquid, 26*s.* to 27*s.* 6*d.*; common very dark to darkish liquid, 24*s.* to 25*s.*; pale set sugary, 32*s.* to 32*s.* 6*d.*; set palish, 30*s.*; sugary setting, 31*s.* to 31*s.* 6*d.*; fair set, part sugary, 29*s.* to 30*s.*; brown set and setting, 27*s.* to 29*s.*; and dark brown set, 25*s.* to 26*s.* per cwt. Thirteen barrels of various qualities of Hayti sold at 26*s.* 6*d.* per cwt. for mostly fair palish setting. Nine casks Cuban realised 22*s.* to 29*s.*, and 11 cases yellow New Zealand 28*s.* 6*d.*

IPECACUANHA was cheaper, 18 bales Matto Grosso selling at from 8*s.* 5*d.* to 8*s.* 8*d.* for fair sound, 8*s.* 2*d.* for oil- or grease-damaged, and at from 7*s.* 3*d.* to 7*s.* 9*d.* for slightly to badly sea-damaged. Three bales of fair stout Minas were held at 8*s.* 4*d.*, and a further nine bales were bought in at nominal figures.

LAVENDER-FLOWERS.—A lot of 19 bales sold at 7*s.* per cwt. if paid charges.

LIME-JUICE.—Five puncheons fair palish raw West Indian sold at 1*s.* 6*d.* per gal.

QUINCE-SEED.—Two bags of fair Cape sold at 2*s.* 6*d.*

RHAPONTICA.—Eleven bags of fair small round sold at 42*s.* 6*d.*

RHUBARB was quiet. Four cases of small to medium round High-dried with three-quarters fair pinky fracture and one-quarter dark sold at 1*s.* 1*d.* per lb., and for two cases of small round and part trimming Shensi, with three-quarters good fracture, 2*s.* 6*d.* was paid.

SARSAPARILLA.—Although a large quantity offered, the demand was brisk and fully previous prices were paid for grey Jamaica, 43 bales of which sold at 2*s.* 3*d.* per lb. for fair, from 2*s.* to 2*s.* 2*d.* for part rough, and 1*s.* 9*d.* to 1*s.* 11*d.* for partly country-damaged and mouldy. Native Jamaica was also well competed for, but only a small proportion was good red, for which 1*s.* 3*d.* was paid; 1*s.* to 1*s.* 2*d.* for dull to fair red, 11*d.* for middling, and 9½*d.* to 8½*d.* inferior mixed to common grey.

SENNA.—All the Tinnevely was disposed of at barely steady prices for leaf, from 1½*d.* to 1¾*d.* being paid for small inferior to common, 2*d.* to 2½*d.* for middling to fair greenish, 3½*d.* to 4½*d.* for fair to good bold green. Pods sold at 1½*d.* to 1¾*d.* for dark to good. Twenty-four bales fair sound Alexandrian broken leaf sold at 5*d.* to 5½*d.* and good clean three-quarter leaf at 7*d.*, a bale of slightly sea-damaged at 4¾*d.*, and a bale of slightly sea-damaged siftings at 1*d.* Two bales of fine pale pods realised the extreme price of 1*s.* 9*d.*, and two bales slightly sea-damaged realised 4½*d.*; fair sound papery 6¾*d.*; good clean whole green leaf was held at 8*d.* per lb.

TAMARINDS were quiet, the only public sale referring to three barrels of dry West Indian without reserve at 7*s.* per cwt. Fair quality in bond was held at from 12*s.* to 14*s.* according to quality.

TURMERIC.—Ten bags of whole Madras bulbs sold at 20*s.* and fair Madras finger was limited at from 24*s.* to 25*s.* Twenty bags fair Cochin split bulbs realised 15*s.*, and 24 bags sea-damaged 13*s.* per cwt.

VARIOUS DRUGS.—For two bags of ordinary *Ignatius* beans a bid of 7*d.* was refused, 8*d.* being wanted; 25 bags of fair dried West Indian *Kola* were bought in at 7*d.* for halves. Five bags of barely fair new crop *Squills* were retired at 3*d.*, and for a case of fair *Mastich* 2*s.* 9*d.* was the buying-in price; 175 cases *Olibanum* were retired, the limits being from 47*s.* 6*d.* to 50*s.* for middling to fair small drop and 26*s.* for garblings. A box of *Elaterium* was limited at 8*d.*, and a case of 1,000 oz. fine *Couhage* at 1*s.* per oz. For 60 bales decorticated *Liquorice-root* 25*s.* was wanted, at which private sales have been made. Four cases of *Balsam tolu* in small tins were bought in at 5*s.* to 5*s.* 3*d.* for good hard, and for ten casks good pale raw West Indian *Lime-juice* 2*s.* per gal. was wanted. Seven bags *Ammoniacum* were limited at 75*s.* for small to medium pale tear, part blocky and dark, and at 70*s.* for

fair almondy in hard block. Fifty drums *Gurjun* oil from Penang were limited at 4*d.*, at which business has been done privately. A lot of 212 bags *Cascara sagrada* was limited at 42*s.* per cwt. gross for net without discount.

WAX (BEES').—Dull of sale. Nine cases Bombay of mixed colours sold at 6*l.* 7*s.* 6*d.* subject, and for a further nine cases a bid of 6*l.* 10*s.* is to be made; ten bags of unbleached Calcutta realised 7*l.* per cwt. Nine packages Jamaica sold at 7*l.* 15*s.* to 7*l.* 10*s.* for mostly fair mixed colours; a further 14 packages in another interest was held at 8*l.* to 8*l.* 5*s.*

Manchester Chemical Market.

Manchester, August 20.

The market so far as prompt demand for heavy chemicals is concerned remains quiet. There is some uncertainty as to the future, but in any respect we must not expect lower prices. It is stated that the future quotations of bleaching and ammonia alkali may be settled about the middle of next month, and in this connection it may be stated that it is just possible there may be a reduction in caustic soda. Here, again, interested parties are very reticent. There has been a sharp jump in the price of "United Alkali" shares, but whether this is caused by a "rig" in the market remains to be seen. We are rather inclined to think it is legitimate up to a certain point, after that there is not much to be said. The position of sulphate of copper shows no change, although the raw material is steady. Current rates are about 24*l.* 7*s.* 6*d.* to 24*l.* 12*s.* 6*d.* per ton best brands delivered Manchester. Brown acetate of lime is inquired for, but American may be quoted 8*l.* per ton c.i.f. and grey 13*l.* 10*s.* There is not much change to note in sulphur; flowers are 7*l.* per ton. Roll brimstone (best brands) 5*l.* 5*s.* (ex ship), and recovered 4*l.* 12*s.* 6*d.* to 4*l.* 15*s.* per ton on rails. White lead (pure) 25*l.* per ton. Coal-tar products show little change. Sulphate of ammonia is 14*l.* 3*s.* 9*d.* f.o.r. Manchester.

Heavy Chemicals.

The general condition of the heavy-chemical market does not fluctuate much. There is a good all-round demand, particularly against existing contracts, and since stocks are kept on the low side prices are well maintained.

SULPHATE OF AMMONIA.—This market is firmer, and prices are higher. Present nearest figures: Beckton, 25-per-cent. ammonia guaranteed, prompt, 14*l.*; London terms, 13*l.* 12*s.* 6*d.*; Leith, prompt 14*l.* 10*s.*, January-June 14*l.* 15*s.*; Liverpool 14*l.* 8*s.* 9*d.*, January-June 14*l.* 12*s.* 6*d.*; and Hull, 14*l.* 6*s.* 3*d.*

LEAD PRODUCTS are in demand and show advances. Dry white lead, 25*l.* 10*s.* to 25*l.* 15*s.*; red lead, 21*l.* 15*s.*; pig lead 20*l.*; and sheets 23*l.* 15*s.* per ton Tyne. Brown acetate of lead 23*l.* 5*s.* to 23*l.* 15*s.* and white acetate of lead 26*l.* 15*s.* to 27*l.* per ton. Nitrate of lead 26*l.* 10*s.* to 27*l.* per ton.

BARIUM COMPOUNDS are in good average request at fair rates. Blanc fixe, pure precipitate barium sulphate in paste form, 6*l.* 10*s.* to 6*l.* 15*s.* per ton in 8 to 9 cwt. casks. Mineral sulphate of barytes 35*s.* to 90*s.* per ton, according to quality, quantity, and package. Chloride of barium crystals, 8 to 10 cwt. casks, 5*l.* 7*s.* 6*d.* to 5*l.* 17*s.* 6*d.* per ton. Precipitated barium carbonate, 5*l.* 10*s.* to 6*l.* 5*s.* per ton in 2-cwt. bags. Crude calcined barium sulphide, 70 to 75 per cent., 5*l.* 5*s.* to 5*l.* 15*s.* per ton in 5 to 6 cwt. casks. Hydrate of barium, crystals, in 6 to 7 cwt. casks, 12*l.* 5*s.* to 13*l.* 5*s.*; concentrated solid, 58 to 60 per cent. BaO, in 6 to 7 cwt. drums, 13*l.* 10*s.* to 13*l.* 15*s.*; and crushed, in 3 to 4 cwt. drums, 14*l.* 15*s.* to 15*l.*

Cablegram.

AMSTERDAM, August 22.—At the auction of cinchona held here to-day 11,004 packages were offered, weighing about 960,249 kilos., the quinine-content of which was about 56,317 kilos. Of the above quantity 5,029 packages sold at the average unit of 4.29c. per half-kilo., against 4.31c. last sale. The approximate purchases of quinine were as follows: (1) The English and American factories, 5,591 kilos.; (2) the Brunswick factory, 2,224 kilos.; (3) the Mannheim factory, 2,934 kilos.; (4) the Amsterdam factory, 246 kilos.; (5) the Frankfort and Stuttgart factories, 1,325 kilos.; (6) the Maarsse factory, 2,893 kilos.; (7) various buyers, 9,730 kilos. The prices paid for manufacturing bark ranged from 11½c. to 47½c., and for druggists' from 8½c. to 42½c. per half-kilo. Of the coca-leaves, 73,255 kilos. sold at from 3c. to 41c. per half-kilo., the average unit being 18.87c.



Memoranda for Correspondents.

All communications must be accompanied by the names and addresses of the writers, otherwise they cannot be dealt with. Queries by subscribers on dispensing, legal, and miscellaneous subjects connected with the business are replied to in these columns if they are considered to be of general interest. Letters submitted for publication (if suitable) should be written on one side of the paper only. Their publication in "The Chemist and Druggist" does not imply Editorial agreement with the opinions expressed.

Copaiba.

SIR,—In reply to the letter from Messrs. Herbert Hymans & Co. (*C. & D.*, August 17, index folio 319), I desire to explain, first, that I have no knowledge of the market value of African balsam, as I do not know that it really has any commercial value at all. I can only state that we have had parcels of South American balsam bought in New York and in London, and said to be direct imports, which have given distinct indications of African balsam by the recognised tests, and only last week we had to reject a parcel bought in London for this very reason. It was supposed to be a direct importation and from the direct importers. Second, our company have dealt very fully with the matter in the "Analytical Notes" for 1911, and further experience this year has confirmed us in the opinion that the abnormal rotations and other figures occasionally obtained from samples of South American copaiba are due to careful adulteration.

Yours truly,

EDWARD EVANS.

Letters of Credit.

SIR,—The details of the litigation in regard to a letter of credit, mentioned in the *C. & D.*, August 17, index folio 279, will certainly be of interest to many wholesale houses who send out foreign travellers. But there are several points in your report which I am not clear about, probably owing to my limited experience in such matters. For instance, it is stated that, as the account of deceased was overdrawn at the head office, "payment of the letters of credit was stopped by cable" (after Mr. R. R. Martin's decease). But would not the fact of the holder's death at once render invalid any letters of credit payable to him personally? If his account was overdrawn, evidently stopping payment for that reason was rather late in the day. If the credits were cancelled by reason of his death, to avoid the possibility of forgery, one could understand that course better. More details as to the reason for the lawsuit between Martin, Elgar, Ltd., and F. Stearns & Co. would have been interesting, but one may suppose that two large firms have not engaged lightly on an expensive lawsuit, which is finally settled out of court. Of course, letters of credit are not "paper money," as your report would appear to indicate, but are credits payable to the *bona-fide* holders whose names appear thereon. One is led to imagine that the letters of credit were issued by F. Stearns & Co. to the late R. R. Martin for some business transaction, which the latter's firm at Capetown afterwards disowned, because it would appear unusual for a firm in Detroit, U.S.A., to issue letters of credit to the director of a prominent Cape Town house merely for travelling expenses. Another interesting point is in what way could Martin, Elgar, Ltd., protect F. Stearns & Co.'s property in South Africa by putting an interdict on it? I venture to draw attention to these points as matters of general interest in connection with what is, as reported, a very unusual lawsuit.

Yours truly,

ANGLO-PARISIAN. (21/11.)

Austrian Pitchblend.

SIR,—We desire to draw your attention to a statement in the new edition of Martindale and Westcott's "The Extra Pharmacopœia," Vol. I, p. 672, that the Austrian Government have prohibited the export of pitchblend.

Similar statements are also made in other publications—*e.g.*, Soddy's "The Chemistry of the Radioactive Elements." It is difficult to say who is responsible for this capital error, for other countries are already taking advantage of the fact that such a prohibition only applies to the Government mines, whereas there are several pitchblend mines in Austria which are quite independent of the Government, and there is no law to prevent them from sending the ore out of the country. Moreover, a company is now being formed in London for the purchase of Joachimsthal pitchblend mines, rich in uranium, encircling the Government mines, and covering about four and a-half times the area.—Yours faithfully,

CHAS. ZIMMERMANN & Co.

9 and 10 St. Mary-at-Hill, London, E.C.

Yellow Santonin.

SIR,—In regard to the modified santonin produced by exposure of the ordinary drug to sunlight, to which you refer in a reply to a correspondent (*C. & D.*, August 17, index folio 320), it is believed by many medical men who have practised in the Far East to be a specific for that form of dysentery known as sprue. I have occasionally been asked to supply it, and have been assured that it possesses therapeutic properties quite distinct from ordinary santonin. I have no access to books of reference at the moment, but there is, I think, a retired medical man living in Bath who has written on sprue, and who would certainly not agree that there is no difference between the two varieties as to their medicinal effects. The physio-chemistry of photosantonin was fully gone into a few years ago in Merck's "Annual," and if my memory is not at fault, it was found that there is a distinction between the two substances. In China the yellow santonin is readily obtained by exposing the ordinary glucoside to the direct rays of the sun. I hope this information may be useful to your subscriber.

Yours truly,

CLIMAX. (19/8.)

National Insurance Dispensing.

SIR,—Jay Mack seems to have got into difficulties over the National Insurance dispensing. If he would study the articles in the *C. & D.*, March 2 and 9 (by myself) and April 13 (by "Scrutator"), he would find that if the system there laid down be adopted all his difficulties would be at an end; for the system provides 1s. per hour for a qualified dispenser and 2d. per prescription for the proprietor, who need never enter the dispensing department, and in these circumstances chemists in the Midlands, as well as elsewhere, will be able to continue their usual routine of business. I am convinced that my system is workable and practical, and can be put into working order under present conditions almost in a moment's notice. The most important points about the system are, that the chemist cannot lose anything, because everything he does bears its own profit. If he only does a little and can manage it without extra help, then he saves the dispenser's 1s. per hour, in addition to his own 2d. per prescription. If the work assumes larger proportions, he can employ a dispenser either part time or whole time, and leave it all to him while he gets on with his usual work, and he is getting 2d. per script without any extra trouble to himself. From the doctor's point of view he can prescribe whatever he likes, expensive or not, and the chemist clears himself in every case. There would not be any fear of the prescriptions being passed on from one to another, because the patient would have to deliver both copies to the chemist—one to be retained by the chemist and the other to be used as a voucher for claiming payment—and the doctor keeps the third. The only persons to object to the cost would be the Insurance Committees, and they would have to settle that with the doctors themselves. It will be seen in the article by "Scrutator" that the cost works out at about 8½d. per script, which is not too much to expect. If the work is to be done properly, then an appropriate price must be paid. It is certain that if chemists do not get the dispensing now they never will.—Yours faithfully,

46 Hathaway Road, Croydon.

H. C. RICHARDS.

SIR,—As your Editorial suggested a week or two ago, National Health Insurance needs a rest in order to let men

assimilate quietly the pros and cons of this very big subject. "Xrayser" (*C. & D.*, August 17) says that "our existence depends on dispensing." Yet nine-tenths is done by the doctors themselves in England and Wales. It is wonderful what we have done without it. Further, he says, "upon dispensing pharmacy as a profession was built up." It is not a profession, and the undoubted advance made by our craft in the last fifty years in turnover, in profits, and in fittings, has been made in spite of the loss of nine-tenths of the dispensing. The *C. & D.* Retrospect tells us that fifty years ago meagre dispensing-profits had to be supplemented by the sale of paints and drysaltery. The fact is that many chemists were filled with high hopes and inflated ideas when National Health Insurance was first mooted. Men who detest the huckstering part of the drug-trade saw in this new proposal a plank which was to save them from the business part, and ultimately lead them into a profession and the land of milk and honey generally. Let readers look up Sir Edward Evans's address at Edinburgh (*C. & D.*, August 3, index folio 198), where it is stated:

"I admit it is not always practicable to work out an ideal, and no one would be rash enough to suggest an entire cessation of dispensing by medicos nor legislation to that effect."

Well, Lloyd George's Act is legislation to that effect—that produced the doctors' revolt and the special clause: "Or in special circumstances money payments instead of free medical benefit." The one fact which cannot be gainsaid is this: that the working man in England has a holy horror of doctors' bills, and whether the medical benefit is national or not, club-work will continue. The working man feels that he may suffer in the medical squabble, and a way will be found of protecting his interests. While he is at it he may start his own dispensary, for the old belief still pertains that the chemist makes 200 per cent. profit, and that if he is to protect himself against the doctor he may as well include the druggist. Many ways occur to me of showing how the trade could prove to the working man how mistaken are his ideas on drug-trade profits. But in the present chaotic state of drug-trade opinion, when so many men seem to prefer fallacies to facts, the best way for busy men is to let time have an opportunity. I have seen so many fallacies upset that I am sanguine enough to be sure this latter fallacy, put forward by "Xrayser," will also be upset. The Practice paper on apprentices at the Edinburgh Conference is a case in point of obsolete ideas giving place to modern business methods, which ought to materialise at the Conference of 1913. JAY MACK.

The Fairechild Scholarship.

SIR,—As I was bracketed for first place in the Fairchild Competition of 1912, I thought that my method of procedure might also be of interest to other students of pharmacy. I was apprenticed to Messrs. J. G. Plumley & Son, Bristol Bridge, Bristol, and after being there a little time, my employers persuaded me to take evening lessons in theoretical and practical chemistry held at the Merchant Venturers' Technical College. I attended these classes, and sat for the usual examinations at the end of the session. The next year I again attended the classes, this time taking advanced chemistry and also elementary botany, although this subject is not required in the Fairchild Competition. In order to obtain a knowledge of materia medica I borrowed a case of specimens, and with the aid of a "Greenish" was able to do a lot of useful work. My tutor in business knowledge was Mr. J. G. Plumley, and he gave me a good grounding during my apprenticeship. The one subject left to be dealt with was pharmacy, and to work up for this I placed myself under the tuition of Mr. D. J. Williams, Ph.C., F.C.S., of the Bath and West of England College of Chemistry and Pharmacy. I sat for the Fairchild Competition at Cardiff under the supervision of Mr. Hagon. In July I sat for the Minor and passed, thus rendering myself unable to take up the scholarship. I might add that all the study which one puts in for this scholarship is useful to the student when he comes to the Minor.

Yours truly,

W. J. DAVIS.

Bristol.

Legal Queries.

Consult "The Chemists' and Druggists' Diary," 1912, pp. 435 to 454, where most legal difficulties are anticipated, before writing about your difficulty.

Alpha (21/49).—SUNDAY TRADING.—See reply to "Rex."

P. D. R. (21/22).—EXTRACTUM CANNABIS INDICE is not a scheduled poison.

Scales (21/47).—STAMPING PERSONAL WEIGHING-MACHINE.—See *The Chemists' and Druggists' Diary*, p. 451.

L. A. (17/62).—The fee charged for restoring a name to the Register of Chemists and Druggists is one guinea.

J. B. C. (19/28).—In Ireland the contributions under the National Insurance Act of employer and paid apprentice are 2½d. and 3d. respectively.

W. T. (16/1).—THE BRITISH MINOR CERTIFICATE is only accepted in Canada as entitling the holder to act as a "clerk" or assistant to a registered chemist.

Bruno (17/25).—PLATE-DEALERS' LICENCES, as required by dealers in gold spectacles, are obtainable at the local office of the Customs and Excise. The rates are given in *The Chemists' and Druggists' Diary*, p. 457.

Olo (13/8).—ENTIRE DRUGS.—The use of the coined word in connection with an "entire" drug in cachet form does not render it liable to medicine-stamp duty. The reason is that entire drugs when sold by the persons named in the Act are expressly exempted from its provisions.

P. W. (20/73).—SALE OF CARBOLIC-ACID PREPARATIONS.—Solutions of carbolic acid of 3-per-cent. strength or less are not included in the Poisons Schedule, and therefore the poison regulations, which prescribe the use of bottles distinguishable by touch, do not apply to the sale.

W. F. G. (16/10).—THE PROPRIETARY OINTMENT cannot be sold *per se* without a medicine-stamp, even if ordered in a doctor's prescription. "W. F. G." asks whether a chemist would get into trouble for selling the unstamped ointment under these conditions. Those who break the law are liable to the penalties for the offence.

Rusticus (20/52).—"DENTAL CHEMIST."—It is quite possible that the title Dental Chemist would not infringe the Dentists Act. At the same time it should be noted that the "Veterinary Chemist" title which the High Court decided could be used by chemists is not strictly analogous. The chemist in the last-mentioned case did not practise as a veterinary surgeon, he only supplied veterinary medicines.

Blankford (22/33).—MANUFACTURING CHEMIST.—The use of this title by an unqualified person must be *bona fide*. Such a person could not, for example, keep open shop for the sale of goods by retail. The exemption from the provisions of the Pharmacy Act in favour of wholesale dealers is contained in Section 17, the words being "sales by wholesale to retail dealers in the ordinary course of wholesale dealing."

C. P. (17/34).—APPRENTICESHIP.—Apprenticeship in England is not recognised by the New Zealand Pharmacy Board (see *C. & D.*, April 13, 1912). The Board, however, accept the examinations in general knowledge recognised by the Pharmaceutical Society of Great Britain as a ground for exemption from the examination in Section A. All the subjects should be passed before emigrating, or you may have to undergo the whole examination.

A. M. (19/20).—(1) LIMITED COMPANIES' BRANCHES.—See reply to "H. T. H." (2) SALE OF UNSCHEDULED POISONS.—Ammonia, the soluble oxalates, and the mineral acids may be sold in Great Britain by anyone, provided the regulations issued in accordance with the Poisons and Pharmacy Act are complied with. These are that the label must bear the name and address of the retailer, the name of the poison, the words "Poisonous" and "Not to be taken," and be supplied in bottles "distinguishable by touch."

Radix (7/67).—(1) THE SHOPS ACT was explained in detail in the *C. & D.*, April 6, index folio 512. Since then we have answered a large number of inquiries on special points. (2) ASSISTANTS' HALF-HOLIDAY.—The requirement of the Shops Act is that "on at least one weekday in each week a shop-assistant shall not be employed about the business of a shop after half-past one o'clock in the afternoon." The only exception to this is where the assistant is given a Bank holiday, when his half-holiday in the preceding week need not be given.

A. P. G. (13/59).—WATER-RATE LIABILITY.—"A. P. G." holds certain premises under a lease in which he covenants to

"pay and discharge all rates taxes charges assessments and outgoings which now are or during the said term shall be assessed charged or imposed on the demised premises or the landlord or tenant in respect thereof." His landlord has written to him claiming a small sum, due in respect of public water-rate, and subscriber asks whether he must pay it. ["A. P. G." should satisfy himself that the public water-rate claimed is payable in respect of the premises in his occupation, in which case only is he liable to pay it.]

Lex (18/9).—DURATION OF APPRENTICESHIP.—"Lex" was apprenticed over a year ago, when an infant. The indenture was signed by him and also by his father, though the latter did not enter into any covenants. He has recently attained his majority, and being dissatisfied with his present situation has given his master a month's notice. Is either he or his father liable for the failure to complete the term of apprenticeship? ["Lex" is entitled to terminate the agreement, now that he has attained the age of twenty-one years. Subscriber's father is under no liability unless he expressly rendered himself responsible for the completion of the term of apprenticeship, which apparently is not the case.]

H. T. H. (10/10).—(1) LIMITED COMPANIES' BRANCHES.—Limited companies carrying on the business of chemists under Section 3 (4) of the Poisons and Pharmacy Act, 1908, are in the same position, as regards branches where scheduled poisons are not sold, as are chemists. They may carry them on as drug-stores without a qualified manager if scheduled poisons are not sold and if the title "chemist and druggist" or its equivalents are not employed. (2) We do not understand your second query, because, as stated above, poisons cannot be sold at the branch managed by an unqualified person. As a limited company, the personal name you mention is not applicable, and may land you in difficulties under company law.

Alpha (10/68).—CONTRIBUTION TO CHARWOMAN'S INSURANCE. Where the contributor is employed by more than one employer in any week it is the first person employing the insured person in that week who is deemed to be the employer. The week begins on Monday in the case of the National Insurance Act, so that if the woman who washes out your shop is employed once a fortnight by someone else, and such employment is earlier in the week than that you give to the woman, the other employer is liable to pay on that week. If the charwoman obtained a certificate of exemption on the ground that she is "ordinarily or mainly dependent for her livelihood upon some other person," that would not affect her employer, who is still required to pay.

Rex (14/58).—SUNDAY TRADING.—"Rex" asks: "What may a chemist legally sell on Sundays?" We should say, in the words of the Shops Act, "medicines and medical and surgical appliances." The Sunday Observance Act, 1677, is the Act governing Sunday trading, the opening section being as follows: "No tradesman . . . whatsoever shall do or exercise any . . . business . . . of their ordinary callings upon the Lord's day or any part thereof (works of necessity and charity only excepted)." It is the exception just noted which seems to apply to chemists, although there has not been any decision as to what is covered by "works of necessity and charity." The penalty under the Act is a fine of 5s. Another section makes it an offence to cry goods on the Lord's day, herbs being definitely mentioned. It is an offence to expose for sale, the punishment being confiscation of the goods. It is provided that if penalties cannot be recovered the offender is "to be set publicly in the stocks by the space of two hours."

Dispensing Notes.

This section is for the discussion and solution of dispensing problems and prescriptions submitted by "C. & D." readers. We are always pleased to receive the opinions of readers for publication. "The Art of Dispensing" ("C. & D." Office, 6s.) is the standard book of reference on this subject.

Soft Soap in Pills.

SIR,—The enclosed scrip was handed to us for dispensing. How should it be done? Can any of your readers suggest a reasonable way?

Sapo mollis gr. v.

Ft. pil. Mitte xxiv.

Sig.: Three to be taken twice a day.

Yours truly,

DISPENSER. (253/21.)

Miscellaneous Inquiries.

We do not as a rule repeat information which has been given in this section during the past twelve months, as it occupies space which can be more profitably utilised for other information. In such cases the numbers are mentioned, and if querists cannot refer to these they may obtain the numbers from the "C. & D." Office at the published prices, usually 6d.

We do not undertake to analyse and report upon proprietary articles, and when samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how.

W. W. (2/30).—The syr. rosæ is not sufficiently strong in syrup to keep perfectly. Heat the syrup to boiling-point, strain, and dissolve in it a further small quantity of sugar, which should have the effect of keeping it. The bottle which has contained the contaminated syrup should be carefully sterilised, so as not to perpetuate the fungoid infection.

Beacon (2/5).—ASSAY OF FORMALDEHYDE SOLUTION.—You have probably since sending your inquiry seen the paper by Messrs. Hampshire and Furnival on this subject in the *C. & D.*, August 3, index folio 209. This paper answers your questions.

P. D. S. (1/21).—FURNITURE-REVIVER.—The following is a good recipe of the type you require; the idea is not new, except as regards the addition of the putty powder, which seems to exert a distinct influence on the result. This you can judge on trial.

Linseed oil	...	...	40	parts
Artificial turpentine	...	...	3	parts
Vinegar	...	...	6	parts
Hydrochloric acid	...	...	1	part
Methylated spirit	...	...	2	parts
Putty powder	...	...	½	part

Mix well. A small quantity of amyl acetate may be needed to take off the smell of the artificial turpentine, but with some brands with a pine odour this is not needed.

A. G. H. (5/43).—FILING CATALOGUES.—The notes on this subject to which you refer were published in the *C. & D.*, December 2, index folio 832, and December 16, index folio 879. They consisted essentially of a recommendation of Moore's method as devised by Moore's Modern Methods, Ltd., 4 St. Bride Street, London, E.C.

J. C. H. (7/60).—BLEACHING FEATHERS ON LIVE POULTRY.—Peroxide of hydrogen is the safest bleacher for this purpose. Just before use add a few drops of ammonia to the quantity that is being applied. The residual yellow tint is afterwards neutralised by sponging with a solution of blue aniline dye, or the domestic blue-bag may be employed. Another method of bleaching is carefully to moisten the feathers with a clear solution of chlorinated lime and then to apply vinegar, the nascent chlorine produced being a powerful bleaching agent. The residual chlorine requires removing with water, and in this respect the process is more troublesome than when peroxide of hydrogen is employed. In the case of show birds, however, trouble does not count for much if the results are good.

A. F. (5/40).—RESTORING CALF BOOK-BINDING.—As the bad condition of the book-binding is due chiefly to dirt, it is best to begin by sponging with warm soap and water, followed by clean water. When quite dry the leather is sized by sponging with tragacanth mucilage, and again allowed to become dry, when the leather is varnished. The varnish may be one of white shellac, but the following is specially recommended:

Sandarac	...	...	60	grams
Mastic	...	...	30	grams
Olive-tree resin,	...	...	24	grams
Shellac	...	...	24	grams
Spirit	...	...	3	litres

Some authorities prefer a casein varnish as being specially preservative. Such a varnish is made by dissolving at a temperature of 75° C. casein 5.5 grams in ammonia solution 7.5 grams and water 100 c.c. A casein varnish often has a rough feeling, which is removed by applying a mixture of yolk of egg 5 parts and glycerin 1 part. When dry polish with flannel. On no account must oxalic acid or other acid be employed in restoring book-bindings.

R. M. L. (2/45).—DOG SKIN-DISEASE.—We cannot say definitely if the moist spot on the terrier's head is a sign of bad health, but it may be, as moisture of various parts is one of the earlier symptoms of mange and eczema. The discharge in these cases, however, is of a sanguineous and not of a greasy nature, as in the terrier about which you write. As treatment you should wash the part thoroughly

with carbolic soap and warm water, and if the discharge reappears clip off the hair and treat for mange. Care should be exercised as to the feeding of the dog.

Strawshed (10/4).—You do not say what formula you employ for phosphorised-ionic drops. A good recipe was given in the *C. & D.*, October 29, 1910, index folio 674. The bitterness of the quinine is inherent, and can only be overcome by reducing the quantity. Some of these concentrated tonics contain the minimum of quinine.

W. H. W. (10/4).—The silver deposit obtained in the manufacture of mirrors is when quite dry flooded with shellac spirit varnish and drained. This preserves the surface from injury and the effects of damp.

G. B. G. (6/50).—As a non-greasy basis for methyl-salicylate ointment we suggest that you experiment with the tragacanth, casein, or soap bases employed in modern skin-creams. These are given in "Pharmaceutical Formulas" or in back numbers of *THE CHEMIST AND DRUGGIST*.

A. H. M. (7/65).—(1) **SOLVENTS FOR CELLULOSE**.—The more common solvents employed for cellulose are alcohol, amyl acetate, and ether, or mixtures of these, such as the following: (a) ether 3 parts and alcohol 1 part; (b) amyl acetate, acetone, and ether equal parts; (c) amyl acetate and acetone equal parts. (2) **BLEACHING FURS**.—You cannot hope for much success in your desire to bleach black fur white, but if you wish to experiment the methods of bleaching feathers which we have indicated in a reply to "J. C. H." will be the least likely to do harm.

C. B. (13/14).—**SHAVING-CREAM**.—The following is of the type that is not required to give a lather when used:

Pulv. tragacanth.	...	...	3ss.
Spt. rectificat.	...	...	3iv.

Put together in a dry corbyn quart and shake, then add the following in their order:

Crem. amygdal.	...	...	3j.
Ol. amygdal.	...	...	3ij.
Glycerini	...	...	3v.
Aquæ	...	...	3xliv.

Mix well and perfume with

Ol. ros. geranii	...	...	3j.
Ol. bergamottæ	...	...	3ij.
Ol. neroli	...	...	3ss.
Ol. citronellæ	...	...	3xxx.
Spt. rectificat.	...	...	3j.

M.

J. H. (8/29).—**TREATMENT OF IRISH TERRIER**.—The puppy that has a discharge from the eyes should have them washed with boric-acid solution, and afterwards a few drops of the following should be placed in each eye: Argent. nitr. gr. v., aq. rosæ 3j. If there is irritation apply ung. belladonnæ or atropine-drops (atrop. sulph. gr. v., aquam 3j.). The puppy should be kept out of draughts, and as internal treatment should have a dose of Donovan's solution once or twice a day.

E. R. B. (11/69).—You do not state whether you already have "Veterinary Counter Practice" (*C. & D.* Office, 4s.).

J. H. M. L. (12/1).—**LEMON-SQUASH CRYSTALS**.—The following is a good recipe:

Tartaric acid in small crystals	...	3 lb.
Granulated sugar	...	6 lb.
Oil of lemon	...	2 oz.
Oil of bergamot	...	1 dr.
Rectified spirit	...	2 oz.
Quinoline yellow	...	to colour

The flavouring and colouring are mixed with the granulated sugar, the acid then added, and the mixture dried.

Two ounces with 1 lb. of sugar and a pint of water make a syrup, from which the beverage is prepared by dilution in a tumbler.

J. N. S. (17/61).—**CORE-GUM** is the name given to dextrin or similar substances when employed for mixing with sand to form the cores of iron or brass castings. It is soluble in water, and there are two ways of employing it. The first is to dissolve 1 lb. of core-gum in a gallon of water and mix the liquid with the sand to make the desired consistency. The "dry" method consists in mixing 2 lb. of core-gum with four bucketsful of dry sand, and afterwards using water to make the sand of the proper consistency for forming cores. The core-gum is sometimes, in addition, dusted on the outside of the core. Older substances employed for the same purpose are flour and resin; the former gives off much smoke, which makes it less suitable to use than resin. Diluted molasses is the liquid employed in these cases. Dextrin has the advantage over resin of cheapness.

Rex (12/48).—(1) Owing to the slight solubility of phenolphthalein in water (1 in 600), an aqueous medicinal preparation cannot be made of a reasonable bulk. Phenolphthalein is soluble in spirit 1 in 10. (2) The prospects of chemists are not better in America and Canada than here. The British qualification is not accepted in Canada for full registration. (3) Thanks for enclosures, which will be dealt with in our "At the Counter" section.

F. C. (15/28).—(1) **EGG-PRODUCING SPICES**.—There are seven recipes in "Pharmaceutical Formulas," from which the following is taken:

Powdered gentian	...	...	3j.
Powdered capsicum	...	...	3j.
Powdered fenugreek	...	...	3ij.
Powdered liquorice	...	...	3vj.

(2) **GLYCO-GEATIN PASTILLES**:

Refined gelatin	...	...	3j.
Glycerin (by weight)	...	...	3iiss.
Ammoniacal solution of carmine	...	...	q.s.
Orange-flower water	...	...	3iiss.

The gelatin is soaked in the water for two hours, then heated on the water-bath till dissolved, and the glycerin added. The carmine solution is added after cooling.

To make a simple cough-pastille 8 oz. of the mass is mixed with vinegar of ipecacuanha mclx. and ammonium glycyrrhizinate gr. xxiv., and flavoured if desired with lemon.

S. G. (17/33) asks: "What is sulphur of Troy?" It is ordered in a mixture of tar, turpentine, and train oil. Suggestions and explanations are invited.

Walnut (14/30).—**WALNUT-STAINS ON HANDS**.—To remove these apply potassium-permanganate solution, and then scrub the stained parts with oxalic-acid solution.

Monte (15/7).—**FOREIGN MEDICAL DEGREES**.—Some of the States of America admit to the Register any man holding a medical diploma or degree, but we do not know of any reputable university that grants its degrees *in absentia*. The M.D. degree of the Brussels University, which is taken by many British medical men, is of high standing, but the candidates require to pass the examinations of the University.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," August 15, 1862.

Chemistry and Pharmacy at the International Exhibition.

We pass across the main thoroughfare to the case of Dr. Stenhouse. This case, in a scientific point of view, may be regarded as the gem of the whole Exhibition. It contains forty or fifty most rare and interesting substances, many of which have been discovered by this eminent chemist, all of which have been worked on by him with his well-known powers of research. The French chemists were frightened when they saw this magnificent display, and about three weeks after the opening of the Exhibition, there suddenly appeared in a corner of the case of M. Menier, in the French Chemical Department, a series of synthetical organic compounds, from the laboratory of M. Berthelot. It would take too long to enumerate the many interesting products contributed by Dr. Stenhouse; we must, therefore, be content with mentioning only a few of the more prominent. The specimen of *myroxocarpine*, or white Balsam of Peru, is peculiarly fine. The same may be said of the splendid crystals of the stearopten of the *Ptychotis ajowan*, or hydrate of thyme. A fine specimen of *nitro-theine* in splendid crystalline scales is also shown. This curious substance is produced from a solution of theine, by passing a current of chlorine through it. *Sparteine*, the third liquid alkaloid, nicotia and conia being the two others, is prepared from the *Spartium scoparium*, or butcher's broom. The platinum salt is very beautiful. *Larixin* is a peculiar substance lately discovered in the bark of the larch, by Dr. Stenhouse. It is remarkable for its lack of affinity for other substances, it being only with the greatest difficulty that it can be made to form compounds of any sort. A specimen of the resin of the *Xanthorrhoea* is interesting, from the fact of its yielding picric acid when treated with nitric acid. It would be impossible to describe the other remarkable and interesting compounds exhibited in this collection. It is seldom one sees so many rare substances proceeding from so famous a laboratory. They have been, we believe, mostly prepared by Mr. E. J. Mills, Dr. Stenhouse's talented assistant, and do infinite credit to this gentleman's manipulatory skill.

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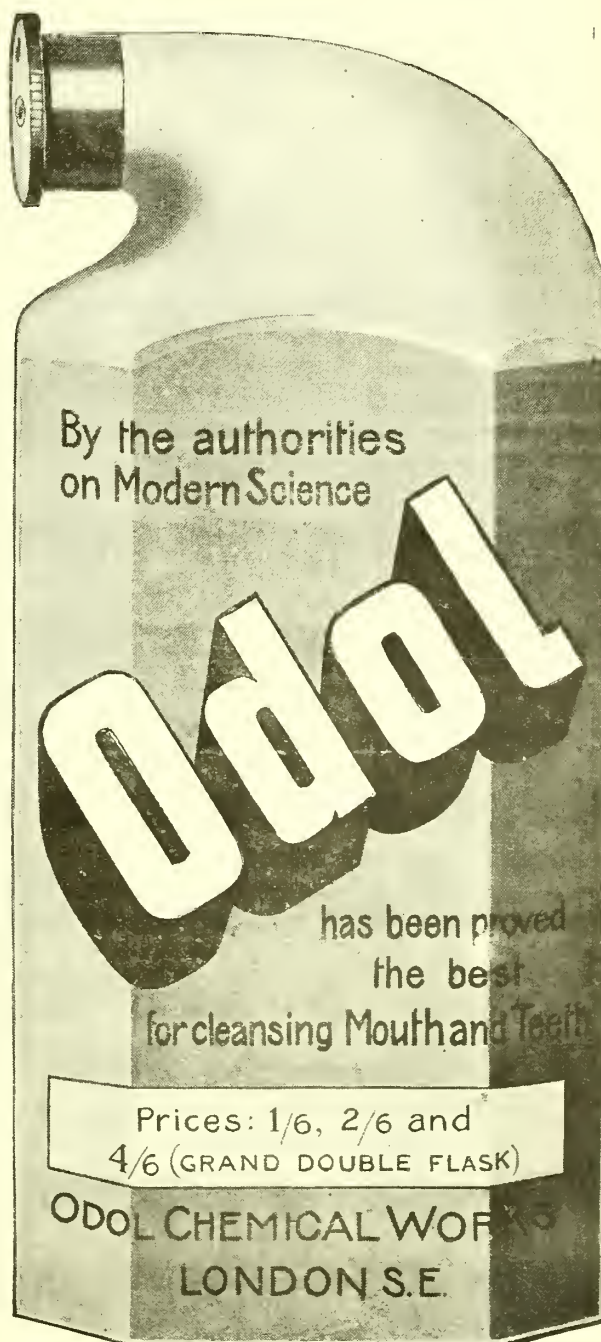
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IN FOUR SIZES. Discount for large quantity.

Bijou - 18/- per gross. Large - 48/- per gross.

Small - 33/- " " Jumbo - 88/- " "

HAIR DYES.

IN ALL SHADES.

THE BILTON ... 3/6 & 6/- doz

THE CARTOL ... 6/- "

THE REGENT ... 10/- "

LIME CREAMS.

IN ALL SIZES.

With various labels and varied finish. A homogeneous
Pure White Cream, which keeps indefinitely and will
not go thick or separate.

White French Limes.

PRICES (per gross): 3 oz. 21/- to 24/-, 4 oz. 24/-
to 30/-, 6 oz. 30/- to 36/-, 8 oz. 40/- to 48/-.**TOOTH POWDERS.**

For every class of Trade. In bulk or packed in tins.

CHEMICAL FOOD. CITRATE OF MAGNESIA. EFFERVESCENT SALINE.
HAZEL FOAM. SYR. HYPOPHOS. CO. SYRUPS (CONCENTRATED).

TRADE MARKS ACT, 1905.

W. WOODWARD, LIMITED

the Proprietors of

**WOODWARD'S
GRIPE WATER**

give notice that they possess the exclusive right to the use of the words

GRIPE WATER(being one of their Trade Marks) whether employed alone or with other words, and that this right will be strictly enforced against every person manufacturing or offering for sale goods described as **GRIPE WATER** which are not manufactured by**W. WOODWARD, LIMITED,
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**Sulphite of Soda
Crystals.****Hyposulphite of
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Ammonia.**It is worth your while to send for
Samples and Price.

TELEGRAMS: "ELECTRO."

TELEPHONE No. 21.

**THE ELECTROLYTIC ALKALI CO. LTD.
MIDDLEWICH, CHESHIRE.**

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AGENTS:

J. W. BERR & Co., Ltd.,
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BRYCE, SON & Co., Manchester.**COCAINE
MORPHINE
CODEINE
APOMORPHINE
COTARNINE
ETHYLMORPHINE
DIACETHYLMORPHINE**

and all other Opium-Alkaloids.

**"INGELHEIM"
BRAND.****C. H. BOEHRINGER SOHN, NIEDER-INGELHEIM, GERMANY.****USE BEST BOTTLES ONLY.
WILL YOU PLEASE TRY OURS.****I. ISAACS & CO.'S REDUCED PRICES**

106 MIDLAND ROAD, ST. PANCRAS, LONDON, N.W.

The New Shape, Oval Fronted Bottles, 6 ounce size, 9/- per gross.
A Sample Free on Application.**FIRST QUALITY, Quinine Tinted.**3 & 4 6 & 8 12 16 ounce. } Round edges, plain or
10/- 11/- 18/- 20/- per gross } graduated, quinine tinted.**Clear Blue Tinted.**3 & 4 6 & 8 12 16 ounce. } Round edges, plain or
8/- 9/- 13/- 18/- per gross } graduated, clear blue tinted.**PANEL BOTTLES (New Series), Green or Blue Glass.
Good Quality.**2 2½ 4 6 8 10 ounce. } In ordering please say if
7/6 8/- 9/- 10/- 10 6 13/- per gross } green or blue is required.**WHITE PHIALS—GOOD QUALITY.**¾ 1 1½ 2 ounce. } Plain or teaspoons.
3/6 4/- 4/6 5/6 per gross }Six gross and upwards, assorted or otherwise, sent carriage paid to any
address in the United Kingdom. Smaller quantities not carriage paid.

Established 120 years. Bankers: London County and Westminster Bank.

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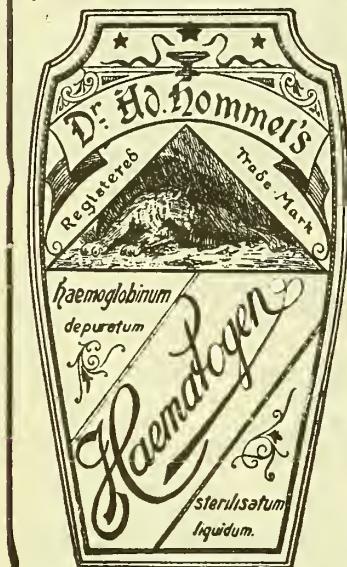
Small size, 3 oz. bottle, in case.
Medium " 7 " " "
Large " 16 " " "

OBTAINABLE IN LONDON FROM

Thos. Christy & Co., 4-12 Old Swan Lane,
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NOW.**

YOU WILL HAVE A DEMAND for the 'ROCHE' Products

Owing to the extensive propaganda we are conducting amongst the medical profession:

'DIGALEN.' The Standard
Digitalis Preparation.
Suitable for oral administration or injection.

'OMNOPON,' a soluble Opium
derivative, employed as a general sedative
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derivative, antiseptic, and absorbent in action—
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THE HOFFMANN-LA ROCHE CHEMICAL WORKS, Ltd., 7 & 8 Idol Lane, London, E.C.
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WOODWARD'S GRIPE WATER or Infants' Preservative.

For the Familiar Ailments of Infants and Young Children.

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Duncan's Anæsthetics

Chloroform (Duncan). Manufactured from PURE BRITISH ALCOHOL

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Chloryl Anæsthetic (Duncan).

Syn. for Duncan's ABSOLUTE ETHYL CHLORIDE

ALL THE ABOVE ARE **British Products** GUARANTEED TO BE

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SPEARMINT → **WRIGLEY'S**
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The Only Largely Advertised Chewing Gum in England is

RETAILS
2½d.
PER PACKET



RETAILS
2½d.
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Chemists all over England are stocking and selling **WRIGLEY'S SPEARMINT** in great quantities. Are you?

You will find **WRIGLEY'S SPEARMINT** Pepsin Gum a most profitable side line. In our advertising we are telling the public what **WRIGLEY'S SPEARMINT** really is; expounding its benefit to the teeth and digestion, its soothing action upon the nerves, &c. Also we are telling exactly what it is made of—which has never been done for Chewing Gum before.

**Costs
You
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Box.**

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sells at sight.
Stocked by Butler & Crisp;
Sangers; May, Roberts; John
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**Sells
Quickly
at
4/2^d**



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Original Packages can generally be supplied at the Current Prices quoted in the Trade Report of this Paper on Terms as below.

- A** cetanilide, B.P., 1 cwt. @ 10½d. lb.; 7 lbs. @ 1/1 lb.; 1 lb. @ 1/2 lb.; powder, 1d. lb. extra.
- *Acet. Ipecac. B.P., 7 lbs. @ 1/5 lb.
- " Scille, P.B., 7 lbs. @ 3d. lb.
- " Acetylo-Salicyl., 56 lbs. @ 2/4 lb.; 7 lbs. @ 2/7 lb.; 1 lb. @ 2/9 lb.
- Acid Boric Pulv., 3 cwt. @ 29/- cwt.; 1 cwt. @ 29/6 cwt.; leviged, 3/- cwt. or ¼d. lb. extra.
- " Carbol. Xtls., 39/40, 56 lbs. @ 10d. lb.; 10 lb. tins @ 8/6 each; 36 1-lb. Bots. @ 11½d. lb.; Single Bots. @ 1/1 lb.; Detached Cryst. 10 lb. tins @ 10/- each; 1 lb. @ 1/4 lb.; Crude Black, 45 gall. casks @ 1/- gall.; 5 gall. drums @ 1/4 gall.; 1 gall. tins @ 1/6 each.
- " Oxalic Cryst., 5 cwt @ 3½d. lb.; 1 cwt. @ 3½d. lb.; 14 lbs. @ 4d. lb.
- " Salicyl. pulv., 7 lbs. @ 1/2 lb.; phys. pure, 1 lb. @ 3/1 lb.
- * Sulph. Aromat., B.P., 5 lbs. @ 3/8 lb.
- Adeps Benz., B.P., 28 lbs. @ 8d. lb.; 7 lbs. @ 9d. lb.
- Ammon. Benz., 7 lbs. @ 2/8 lb.; 1 lb. @ 3/- lb.
- Ammon. Carb. lump, 3 cwt. @ 4½d. lb.; 28 lbs. @ 5½d. lb.; 7 lbs. @ 5½d. lb.; powder, ¼d. lb. extra.
- Ammon. Chlor., 99% pulv., 1 cwt. @ 33/- cwt.; 7 lbs. @ 4d. lb.; Batteries, 4/- cwt. extra.
- Anisced, English ground, 1 cwt. @ 44/- cwt.; 7 lbs. @ 5½d. lb.
- Antim. Nig Pulv., 1 cwt. @ 24/- cwt.; 14 lbs. @ 3/0 cwt.
- B** als. Copaiba pure, 44 lbs. @ 2/4 lb.; 9 lbs. @ 2/6 lb.; 1 lb. @ 2/8 lb.
- Bismuth, P.B., Carb., 7 lbs. @ 8/10 lb.; 3 lbs. @ 9/1 lb.; 1 lb. @ 9/3 lb.; subnit. 1/- lb. less.
- C** affeine, P.B., 1 lb. @ 14/- lb.
- Caffeina Cit. B.P., 1 lb. @ 10/- lb.
- Calcii Carb. præcip., 5 cwt. @ 13/- cwt.; 1 cwt. @ 16/- cwt.; 28 lbs. @ 21/- cwt.
- " Hydras, P.B., 1 cwt. @ 25/- cwt.; 7 lbs. @ 5d. lb.
- " Hypophosph. Pur. P.B., 1 lb. @ 2/3 lb.
- Camphor, English Flowers, "not artificial," 5 lbs. @ 2/- lb., ½ oz. or ¼ oz. 7 lbs. @ 2/- lb.; Crude, good white, about 92% as imported, 140 lbs. @ 1/7 lb.; 28 lbs. @ 1/8 lb.
- Carbo Animalis or ligni, powder or lump, 1 cwt. @ 14/- cwt.; 28 lbs. @ 2d. lb.
- Carmine, Finest, 1 lb. @ 18/- lb.; No. 2, 1 lb. @ 13/- lb.
- Cera Alba, B.P., White Moons, 1 cwt. @ 1/7 lb. 28 lbs. @ 1/8 lb.; 4 lbs. @ 1/8½ lb.; Flav. 1 lb. Blocks, 28 lbs. @ 1/7 lb.; 4 lbs. @ 1/8 lb.; 1 oz., ½ oz. Tabs., 7 lbs. @ 1/8 lb.
- Cetaceum, No. 1, fine white English, 64 lbs. @ 1/1½ lb.; 7 lbs. @ 1/3 lb.; powder, 7 lbs. @ 1/9 lb.
- Chloral Hydras Cryst. B.P., 7 lbs. @ 3/1 lb.; 1 lb. @ 3/6 lb.
- *Chlorodyne, 5 lbs. @ 2/- lb.
- *Chloroform, pure B.P., 12 8-lbs. @ 1/3½d. lb.; 8 lbs. @ 1/4½ lb.; 6 1-lb. bottles, @ 1/6½ lb.
- Chlorophyll, 7 lbs. @ 5/- lb.; 1 lb. @ 5/9 lb.
- Cocaine Hydrochlor., B.P., 25 ozs. @ 6/2 oz.; 4 ozs. @ 6/7 oz.; 1 oz. @ 7/6 oz.
- Cream Tartar, 98% powder, 1 cwt. @ 88/6 cwt.; 7 lbs. @ 11d.
- Creasote, Beechwood, P.B., 22 lbs. @ 1/11 lb.; 7 lbs. @ 2/1 lb.
- *Dec Aloes Co. Conc., 1-2, 6 lbs. @ 2/9 lb. Sincroce, 6 lbs. @ 1/2 lb.
- " Cinchonæ (Rubra) Conc. 1-7, 6 lbs. @ 1/10 lb.
- *Dec Senegæ Conc., 6 lbs. @ 2/3 lb.
- Dionine, 15 grains @ 1/8; ¼ oz. @ 9/-
- E** ss. Bergain (Oil), 12 lbs. @ 26/- lb.; 1 lb. @ 27/- lb.; not guaranteed absolutely pure.
- " Limonis (oil) original coppers, 12 lbs. @ 5/6 lb.; 6 1-lb. bots. @ 6/3 lb.; not guaranteed absolutely pure.
- *Ext. Belladonnæ Liq., B.P., 5 lbs. @ 4/3 lb. 1 lb. @ 4/8 lb.; solid, 7 lbs. @ 2/10 lb.
- Ext. Cannab. Ind., Alc., B.P., 5 lbs. @ 38/6 lb.; 1 lb. @ 39/6 lb.
- Ext. Cascara Sag. Liq., B.P., 1 cwt. @ 1/0½ lb.; 10 lbs. @ 1/2 lb.
- *Ext. Ergot Liq. P.B., 5 lbs. @ 6/- lb.; 1 lb. @ 6/6 lb.; Solid, 1 lb. @ 28/- lb.
- Ext. Gent., P.B., Solid, 1 cwt. @ 9½d. lb.; 7 lbs. @ 10½d. lb.
- *Ext. Glycyrrh. Liq. B.P., 6 lbs. @ 1/4½ lb.
- *Ext. Hammamelis, Liq., P.B., 5 lbs. @ 3/5 lb.
- Ext. Hyoscyam., Solid, B.P., 3 lbs. @ 4/9 lb.; 1 lb. @ 5/1 lb.
- *Ext. Ipecac. Liq., P.B., 5 lbs. @ 13/9 lb.; 1 lb. @ 14/9 lb.
- Ext. Maltic. Ol. Jecoris, 10 lbs. @ 5½d. lb.
- *Ext. Nucis Vom. Liq. P.B., 5 lbs. @ 3/- lb.; 1 lb. @ 3/3 lb.; solid, 5 lbs. @ 2/9 lb.; 1 lb. @ 3/- lb.
- Ext. Quassia, Solid, 7 lbs. @ 6/- lb.; 1 lb. @ 6/4 lb.
- Ext. Sarsæ Co. Solid, 7 lbs. @ 4/- lb.; 1 lb. @ 4/6 lb.
- F** erri Ammon. Cit., P.B., 28 lbs. @ 1/6½ lb.; 7 lbs. @ 1/7½ lb.
- Ferri Carb., 1 cwt. @ 21/- cwt.; 28 lbs. @ 3d. lb.
- Ferri et Quinina Cit. P.B., 500 ozs. @ 4½d. oz.; 100 ozs. @ 4½d. oz.; 25 ozs. @ 4½d. oz.
- Fol. Hyoscyam. Bien., 7 lbs. @ 5/6 lb.; pulv. 4/6.
- Formaldehyde, 40%, 4 cwt. Barrels @ 39/- cwt.; 132-lb. Carboys @ 5½ lb.; 7 lbs. @ 7½ lb.
- G** lycerin, Opt., DD., 1-260 P.B., 1 cwt. @ 94/- cwt.; 56 lbs. @ 95/- cwt.; 12 lbs. @ 1/1 lb.
- Gum Acacia sorts, 3 cwts. @ 52/6 cwt.; 1 cwt. @ 56/- cwt.; 7 lbs. @ 7d. lb.; English Ground Powder, No. 1, 1 cwt. @ 95/- cwt.; 7 lbs. @ 1/1 lb.; No. 2, 1 cwt. @ 75/- cwt.; 7 lbs. @ 10d. lb.
- H**examethylenetetramine, 7 lbs. @ 2/- lb.; 1 lb. @ 2/3 lb.
- Hydrargyrum, P.B., 75-lb. bottle @ £87/6; 10 lbs. @ 2/6 lb.; 1 lb. @ 2/9 lb.; Amon., 28 lbs. @ 3/5½ lb.; c. Creta, 28 lbs. @ 1/5 lb.; Iodid. Rub., 28 lbs. @ 9/8 lb.; Oxid. Rub., 28 lbs. @ 3/5½ lb.; Perchlor., Lump, 28 lbs. @ 2/10 lb.; Subchlor., 28 lbs. @ 3/2 lb.; Sulph. c. Sulph., 28 lbs. @ 2/11½ lb.; 7-lb. quantities 1d. lb. extra, 3 lb. quantities, 2d. lb. extra, 1 lb. quantities 3d. lb. extra.
- I**nsect Powder, Opt. English grd., closed flowers, 28 lbs. @ 1/8 lb.; 7 lbs. @ 1/9 lb.; English Ground, ½ closed flowers, 4d. lb. less; Foreign Ground, 1 cwt. @ 80/- cwt.; 28 lbs. @ 9d. lb.
- L** in. Aconiti Meth., 5 lbs. @ 1/2 lb.; 1 lb. @ 1/5 lb.
- *Lin. Bellad. Meth., 5 lbs. @ 1/5 lb.; 1 lb. @ 1/8 lb.
- Lin. Camph. P.B., 40 lbs. @ 10d. lb.; 9 lbs. @ 11d. lb.
- Lin. Sapo Meth., 9 lbs. @ 7d. lb.
- Lin. Tereb. Acet., B.P., 5 lbs. @ 1/- lb.
- Linseed c. Oil, Crushed, 3 cwt. @ 23/- cwt.; 1 cwt. @ 24/- cwt.
- M** ag. Calc. Levis, 56 lbs. @ 8d. lb.; 5 lbs. @ 10d. lb.; 1 lb. @ 1/- lb.
- Mag. Calc. Pond., 7 lbs. @ 1/10 lb.; 1 lb. @ 2/- lb.
- Mag. Carb. Pond., 56 lb. @ 6½d. lb.; 7 lbs. @ 7½d. lb.
- Mag. Carb. Levis., 1 cwt. @ 25/-; 7 lbs. @ 4d. lb.
- Mag. Sulph., fine druggists', B.P., 1 cwt. @ 6/- cwt.
- *Mist, Sennæ Comp. B.P., 20 lbs. @ 6½d. lb.; 6 lbs. @ 7½d. lb.
- N** apthalene Candles or Balls, 1 cwt. @ 12/6 cwt. 56 lbs. @ 14/6 cwt.; 28 lbs. @ 16/- cwt.
- Nux Area, 1 cwt. @ 22/- cwt.; 7 lbs. @ 3d. lb.; powder, English ground, @ 59/- cwt.; 7 lbs. @ 7½d. lb.
- O** l. Amygdal. Ang., B.P., 9 lbs. @ 2/5 lb.
- Ol. Amygdal. Essent. Artificial, free from Chlorine, 5 lbs. @ 3/- lb.; 1 lb. @ 3/9 lb.
- Ol. Anethi Ang. B.P., 1 lb. @ 12/- lb.
- Ol. Anisi, E.I., 66 lbs. @ 6/- lb.; 16½ lbs. @ 6/3 lb.; 4½ lbs. @ 6/8 lb.; 1 lb. @ 6/11 lb.
- Ol. Morrhuæ, Nov. 1911, finest non-freezing, 25 gall. tin-lined barrels @ 68/6 per barrel; 2-gall. tins @ 4/- each.
- Ol. Nucis Pallid., 45 galls. @ 3/8 gall.; 2 gall. tins @ 9/- each.
- Ol. Olivæ P.B., good yellow, guaranteed pure, 45 gall. Barrels @ 4/5½ gall.; 2 gall. tins @ 5/3 gall.
- Otto Rosæ, finest 1 oz. @ 50/- oz.; No. 2, 1 oz. @ 31/6 oz.
- Oxymel Scilla, B.P., 5 cwt. @ 31/- cwt.; 1 cwt. @ 34/- cwt.; 7 lbs. @ 6d. lb.
- P** apain, 1-80, 1 lb. @ 18/6 lb.; 1 oz. @ 1/7 oz.
- Paraffinum Durum B.P., 2 cwt. @ 2½d. lb.; 1 cwt. @ 3½d. lb.; 56 lbs. @ 3½d. lb.; 7 lbs. @ 4½d. lb.; Molle Flav., B.P., 3½ cwt. @ 16/6 cwt.; 1 cwt. @ 25/- cwt.; 28 lbs. @ 3½d. lb.; 7 lbs. @ 4d. lb.; Alb. B.P., 3½ cwt. @ 55/- cwt.; 28 lbs. @ 7d. lb.
- Pepsin, B.P., 10 lbs. @ 9/4 lb.; 1 lb. @ 10/- lb.
- Phenacetin, P.B., pulv., 1 cwt. @ 2/8 lb.; 7 lbs. @ 2/10 lb.; 1 lb. @ 3/- lb.
- Phenazone, P.B., 7 lbs. @ 6/11 lb.; 1 lb. @ 7/6 lb.
- Phenolphthalein, 7 lbs. @ 5/6 lb.; 1 lb. @ 6/- lb.
- Plumbi Acetas, Druggists', 1 cwt. @ 34/6 cwt.; 7 lbs. @ 5d. lb.; Powder, 1½d. lb. extra.
- Potas. Acetas. Gran. P.B., 28 lbs. @ 1/- lb.; 7 lbs. @ 1/1 lb.
- Potas. Bicarb. pulv., 1 cwt. @ 32/6 cwt.; 7 lbs. @ 4d. lb.
- Potass. Brom. P.B., 1 cwt. @ 1/7 lb.; 28 lbs. @ 1/7½ lb.; 7 lbs. @ 1/9 lb.
- Potass. Chlor. Pulv., 1 cwt. @ 4d. lb.; 7 lbs. @ 5d. lb.
- Potass. Cit., B.P., 7 lbs. @ 1/8 lb.
- Potass. Metabisulph., 1 cwt. @ 35/6 cwt.; 7 lbs. @ 6d. lb.
- Q** uassia Chips, 1 cwt. @ 12/6 cwt.; 28 lbs. @ 2d. lb.
- R** ad. Gentian, English Ground, 1 cwt. @ 37/- cwt.; 7 lbs. @ 5d. lb.
- Rad. Glycyrrh., English Ground, 1 cwt. @ 24/6 cwt.; 7 lbs. @ 3½d. lb.
- Rad. Jalap, English Ground, 28 lbs. @ 1/10 lb.; 7 lbs. @ 1/11 lb.
- Rad. Rhei, E. I., English Ground, 1 cwt. @ 1/4 lb.; 28 lbs. @ 1/6 lb.; 7 lbs. @ 1/7½ lb.
- S** hellac (Orange) 1½ cwt. @ 70/- cwt.; 7 lbs. @ 9d. lb.
- Soda Caustica, 28 lb. tins @ 8½d. lb.; 6 1-lb. Bots. @ 10d. lb.
- Soda Cit., B.P., 3 lbs. @ 1/11 lb.
- Soda Hyposulphite, pea cryst., 1 cwt. @ 8/6 cwt.
- Soda Salicyl. Pulv., 7 lbs. @ 1/6 lb.; phys. pur.; 28 lbs. @ 2/3 lb.; 1 lb. @ 2/6 lb.
- Soda Sulphite Recryst., 1 cwt. @ 16/6 cwt.; 7 lbs. @ 4d. lb.
- Sodii Bromid. P.B., 1 cwt. @ 1/7½ lb.; 7 lbs. @ 1/9½ lb.
- Sodii Salicyl. Pulv., 7 lbs. @ 1/6 lb.; phys. pur. 28 lbs. @ 2/3 lb.; 1 lb. @ 2/6 lb.
- *Spt. Ether Nit. P.B., 4½ lbs. @ 3/6½ lb.; 1 lb. @ 3/9½ lb.
- *Spt. Ammon. Aromat. P.B., 5 lbs. @ 2/9 lb.
- *Spt. Chloroform, P.B., 5 lbs. @ 3/7 lb.
- Strychnia cryst. B.P., 25 ozs. @ 2/2 oz.; 1 oz. @ 2/6 oz.; Hydrochlor. and Sulphate, 2d. oz. less.
- *Syr. Aurant. P.B., 7 lbs. @ 9½d. lb.
- " Easton, B.P., 7 lbs. @ 1/0½ lb.
- " Ferri Iodid. P.B., 7 lbs. @ 1/3½ lb.
- " Ferri Phosphat. Co., 7 lbs. @ 5½d. lb.
- " Hypophosph. Co., B.P.C., 7 lbs. @ 9½d. lb.
- " Pruni Virg. B.P., 8 lbs. @ 7½d. lb.
- " Rhamni, 7 lbs. @ 10½d. lb.
- " Rhei P.B., 7 lbs. @ 8d. lb.
- " Scilla P.B., 7 lbs. @ 5d. lb.
- " Sennæ P.B., 7 lbs. @ 8½d. lb.

*Minimum quantity at these prices: Home Trade, 3 Winchester Quarts assorted; Export, 12 Winchester Quarts assorted.

NOTE.—Only Terms Net Cash with order without discount, or orders accepted through London Merchants or Bankers. Goods carriage forward; all packages free; Export cases extra.

ALLIANCE DRUG & CHEMICAL CO., LONDON.

Office: 34 LEADENHALL STREET.

KINDLY DETACH THIS SHEET AND PLACE IT IN YOUR BUYING BOOK.

AIR CUSHIONS

Guaranteed for 2 years.

REDUCTION IN PRICES.



FIG. 1194.

The "EMPIRE" Red India Rubber Air Cushion.

Dia.	12	13	14	15	16	17	18	19	20 ins.
s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Each	5 0	5 6	6 0	6 6	7 0	7 9	8 9	10 0	11 0



FIG. 1354.

SPECIAL LINE.—Sateen Covered Reeded Air Cushion.

Sizes	14×10	15×13	18×14
s. d.	s. d.	s. d.	s. d.
Each	2 9	3 3	4 0

5% discount allowed for prompt cash off above prices. Carriage paid on Orders of £2 and upwards to any town in the United Kingdom.

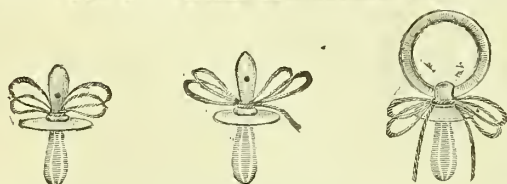
We are the right House for Catheters, Enemas, Elastic Hosiery, Hot Water Bottles, Injection Syringes, Pessaries, Sponge Bags, Trusses, Water Beds, Water and Air Cushions, Waterproof Sheetting, and every description of Rubber Goods.

WRITE FOR ILLUSTRATED PRICE LIST, POST FREE.

OUR GOODS ARE RIGHT AND PRICES LOW.

BURGE, WARREN & RIDGLEY, LTD.

91 & 92 GT. SAFFRON HILL, LONDON, E.C.



"St. Paul's" NEW Ribbed Soothers,

All fitted with Clear Teat, Bone Shield and Fancy Cord.

OBSERVE THE RIBS—
They prevent the Teat collapsing.

1d.	1½d.	2d.	3d.	4d.	6d.	Each.
9/-	10/-	12/-	14/-	15/6, 17/-	19/-	21/- 23/- Per gross.



6d. Improved Old-fashioned Feeding Bottles, with Glass Screw Stopper and **STOUT CLEAR RIBBED TEATS.**

British Make.

Each in Paper Bag	...	...	...	...	Per doz.	3/3
"	"	"	"	"	Per gross	36/-

Order No. 1896.

TERMS 5% MONTHLY A/c.

FRANCIS NEWBERRY & SONS, LTD.,
27 & 28 Charterhouse Sq., London, E.C.



POND'S SPECIALITIES FOR

BUNIONS AND TIRED FEET

PROFITABLE SELLING LINES.

Pond's Toe-spring for Bunions, 30/- doz. Retail, 3/9 each
Pond's Supports for Weak Feet, 36/- " " 4/9 & 5/6 pair

POND'S "IDEAL" SUPPORT,
Best Tempered English Steel. **PATENTED.**
PREVENT FLAT FEET.

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Fleetwood,
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In every case our customers speak very highly of your supports. They always give satisfaction, and need to be more widely known.

Yours truly,
S. C. ROSCOE,
Central Boot Stores

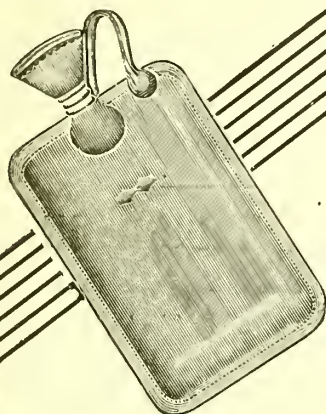
SUPPORT FOR WEAK FEET

WORN IN ANY BOOT.

EVERY ARTICLE Guaranteed or Money Back.

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Rimington & Son, Bridge Street, Bradford.

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The Bottle with a Reputation for Reliability.

Silvertown Hot-Water Bottles are made of the finest materials obtainable, and are strong and thoroughly dependable. So-called cheap bottles are always unsatisfactory. Let us quote you for the reliable "Silvertown." Kindly write to nearest address.

We will letter bottles with your own name free of charge for orders of not less than 3 DOZEN assorted sizes at a time.

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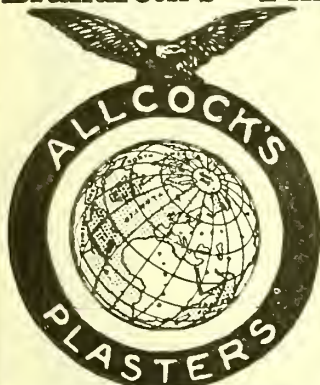
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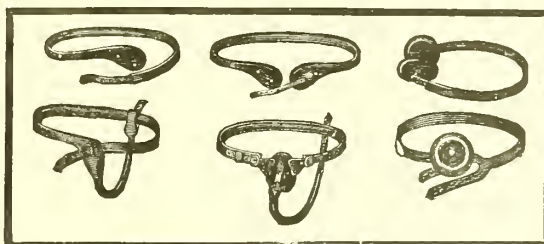


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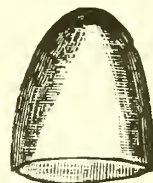
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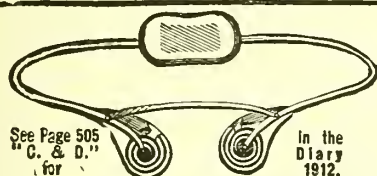
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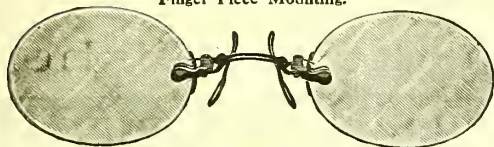
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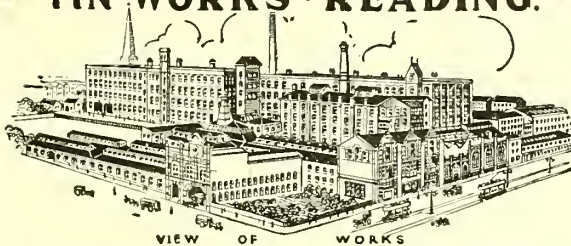
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The bottle here illustrated has a stopper to which is attached a twisted glass rod, by means of which a considerable quantity of fluid can be taken up and applied. This is an improvement upon many of those at present used. The disadvantage attending the use of a bottle fitted with a plain glass peg is that the ammonia, or whatever the substance may be, runs off almost before the stopper is withdrawn from the bottle. The pattern we are now introducing is very useful for ammonia, corn and wart preparations, and will also be found admirably adapted for strong perfumes where a comparatively small amount only is required on the handkerchief. Price 30/- per gross. Each bottle is contained in a wood case.

DEPARTMENTAL CHAT

The new 2-oz. Pomade Jar recently described in "Maw's Page" has already found favour among a large proportion of our customers. Straight sides, shoulderless, each fitted with celluloid cap, are the distinguishing features of this pattern; 19/6 is the cost of a gross. Pharmacists should note the low price of this really useful line.



An article of quickly recognised merit is the "Invincible" No. 1 Safety Razor. There is a large market for an efficient 1/- "Safety." With every confidence Pharmacists can recommend the "Invincible." Price 8/6 per dozen, each in card box, and fitted with one highly tempered twin steel blade. Spare blades, in packets of 6, per dozen packets, 10/6.



"Duplex" is becoming a familiar name with Pharmacists who are selling the very latest Nail Brush. This new pattern embodies all the good points of our previous successes. Yet the price is but 10/- dozen. Smart sale card with all orders.

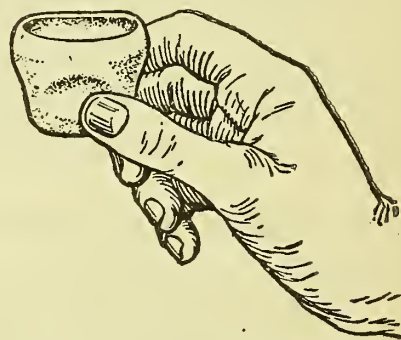
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A receptacle for pennies is not the least important equipment of a Personal Weighing Machine. The nickelled money box we have introduced admirably meets all requirements, being strong, easily fixed, and exceedingly neat in appearance. The price is 6/- each. Have you written for a copy of our "P.W.M." Catalogue?



AN EYE BATH OF NOVEL DESIGN.

Made of white china, and put up in boxes of twelve, the Eye Bath, here illustrated, is—although not intended to supersede those patterns already on the market—far and away the most popular pattern at the present time. The




reason is obvious. Instead of the bath being mounted on a pillar as is customary, a groove is made on each side for the finger and thumb. A firm grip is consequently ensured, which enables the head to be thrown back and the lotion, &c., thoroughly washed into the eye.

At this season of the year, when outdoor recreation is popular, "dust in the eye" is a common complaint, and a display of these Eye Baths—wholesale at 1/9 per dozen—should prove exceedingly profitable.

THEY MEAN MAW'S WHEN THEY ASK FOR THE BEST.

45/24.8.12.
[563]



THE CHEMIST & DRUGGIST SUPPLEMENT.

OFFICE: 42 CANNON STREET, E.C.

SATURDAY, AUGUST 24, 1912

A Copy of this Supplement is inserted in every Number issued of "The Chemist and Druggist."

TO ADVERTISERS IN THIS SUPPLEMENT.

The Publisher desires to make it clear that advertisements of Businesses for Disposal and Wanted, Situations Open and Wanted, Exchange Column, &c., **MUST BE PREPAID** (except in the case of serial advertisers) and to ensure prompt insertion **REMITTANCES MUST ACCOMPANY INSTRUCTIONS.**

Advertisements for the current issue cannot be received after 4 p.m. on Thursday in each week. If it is necessary to telephone or telegraph an urgent announcement this may be done

PROVIDED THE MONEY IS TELEGRAPHED

at the same time and the fact made clear that the money order is to be delivered at 42 CANNON STREET, LONDON, E.C. Advertisers will assist greatly in the preparation and quick despatch of the Supplement by making careful note of these rules. Telephone: No. 852 Bank (two lines). Telegraphic Address: "Chemicus Cannon London." (Three words counted as two.)

It pays to pay for advertising
in this Supplement.

CHEMISTS' TRANSFERS.

Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

1.—SOUTH OF LONDON (Few Miles Out).—Dispensing and Retail Business; returns last year £2,300, increasing; intending investors with £1,200 at command will find this a sound investment.

2.—KENT (Residential Locality).—Dispensing and Retail Business; all good-class trading; position unique; returns, present rate, £1,560, increasing; *net profit about* £450; large shop, corner position; long lease; price £1,250.

3.—LONDON, W. (Busy Market Thoroughfare).—Cash Retail Business; returns, present rate, £9 per week; scope for extension; *profits above the average of Retail trade*; lock-up shop; price £150.

4.—LONDON, S.W.—Branch Business; returns under manager £8 per week; scope for considerable extension; comfortable residence; rent moderate; price £175, or near offer entertained.

5.—LONDON, S.E.—Middle-class Business, chiefly ready money; returns between £900 and £1,000 per annum; *net profit* £300; attractive shop, well fitted and stocked; price £775.

6.—BANKS OF THE UPPER THAMES.—Neglected Business, chiefly ready money; returns £800; scope for extension; attractive shop and good residence; valuation about £400; must be sold.

7.—SURREY (Residential Suburb).—Ready-money Business; returns between £450 and £500, increasing; attractive shop; moderate rental; price £280.

8.—HOME COUNTY.—First-class Dispensing and Retail Business; returns between £1,300 and £1,400 per annum; *gross profit* 50 per

cent. (proof given); large house and garden; held on long lease; further details on application.

9. YORKS (Market Town).—Mixed Business; position unique; returns £940, yearly increase; terms, fixtures and fittings £100; stock at valuation.

10.—LANCS (Death Vacancy).—Good-class Dispensing and Retail Business; returns about £600, which produce *profits above the average of Retail trade*; pushing man could largely increase; price £410.

11.—EASTERN COUNTY.—Unopposed Business; very old established; returns about £600 per annum; *net profit* £160; roomy house, with garden and greenhouse attached; rent moderate; price £350.

12.—SURREY.—Light Retail and Dispensing Business; position is exceptionally good; returns last year £900; can be greatly increased; double-fronted shop; modern fittings; convenient house, small garden; price £600.

13.—HANTS.—Good middle-class trade, Retail, Dispensing and Photographic; returns show a steady increase, and are now £2,100; *gross profit* £784; further details on application.

14.—VILLAGE BUSINESS (Sussex).—Unopposed; returns £900 per annum; *average net profit* £320 (proof given); roomy house, small garden; rent moderate; terms, £100 and valuation of stock and fixtures.

Particulars of any of the above will be furnished on application.

N.B. NO CHARGE TO PURCHASERS.

VALUATIONS FOR STOCKTAKING.

Messrs. O. & Co. desire to emphasize the necessity of a Periodical Statement of Account, by which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted, and eventually becomes the cause of confusion and loss.

Messrs. O. & Co. are prepared to undertake these essential duties, and will make Special Terms for such services.

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STOCKTAKING SPECIALISTS to the Entire DRUG TRADE

- 1.—LIVERPOOL.—Returns £700; net profit £250; price £400.
- 2.—MIDLANDS.—In good position of Manufacturing town; returns over £1,000, at fair profits; further particulars upon application; we are sole agents for this.
- 3.—STAFFS.—Light Country Retail; returns £1,400; moderate rental; price £750; sole agents.
- 4.—MANCHESTER.—Returns £1,170; net profit £300; price £350.
- 5.—YORKS.—Good-class Retail and Dispensing; returns last year £1,468; net profit £326; large double-fronted shop and nice house; price £1,150, which is about value of stock and fixtures.
- 6.—S. WALES.—Returns £1,740; net profit £400; price £850; £400 can remain; splendid opportunity.
- 7.—CHELTENHAM.—Good-class Retail and Dispensing; solely in our hands for disposal; returns £1,250; net profit £275; price £900.
- 8.—NEAR BLACKBURN.—Returns £750; net profit £225; rent £26; only 2 Chemists in small town of 8,000; valuation £400.
- 9.—KENT.—Returns £1,410; net profit £313; price £750.
- 10.—SHEFFIELD.—Returns £700; net profit £245; price £450; rent £18; very nice and profitable Light Retail.
- 11.—ESSEX.—Four Businesses for Disposal quickly; total returns a little under £2,000; will accept £825 for the 4; all within easy distance and plenty of scope for increase.
- 12.—MIDDLETON, MANCHESTER.—Returns £350; net profit £100; price £150.

BUSINESSES also for SALE in Birmingham, Brighton, Dover, York (several), Manchester (several), Liverpool (several), London (all parts), Hartlepool (several), Leeds, Maesteg, Leicester, Nottingham, Plymouth, Portsmouth, Norfolk, Herts, Berks, Dorset.

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Vendors invited to send particulars, in confidence.

Purchasers stating requirements can have selection from Register of some hundred Businesses of all classes, sizes, or places, from £50 to £2,000. A few in London and Suburbs as under:—

	Returns	Rent	Price
	£	£	£
Dispensing	£50	125	Valuation
Di-pensing	£80	80	400
Family and Retail ...	1,000	70	Valuation
Retail and Prescribing ...	900	35	400
Unopposed	700	50	350

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Chemists' Valuers and Expert Stocktakers.

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We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

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- 1.—YORKS (Inland Health Resort).—First-class Retail and Dispensing; returns £1,500; good profits; splendid position; elegantly fitted and fully stocked; price £1,150; worth attention.
- 2.—NORTH WALES.—Old-established Retail, in central position busy market town; returns over £1,600; net profit £456; books properly kept; stock and fixtures worth £1,000; price £1,200; part can remain.
- 3.—SURREY.—Good-class unopposed Retail and Dispensing Business; returning about £650; net profit £200; convenient house; well fitted and stocked; price £550.
- 4.—WEST MIDDLESEX (Death Vacancy).—Good-class Business; unopposed; healthy locality; returns £750, was doing £900; net profit about £300; attractive Pharmacy; good house; price £675.
- 5.—CHESHIRE.—Good-class Retail and Dispensing Business, in most pleasant locality; returns £650 to £700; net profit fully £260; scope for increase; attractive Pharmacy; price £500, or valuation.
- 6.—WORCS.—Good middle-class Retail and Dispensing Business, in splendid position; no near opposition; returns average £800; plenty of scope; modern-fitted shop and good stock; excellent house; price about £500.
- 7.—DORSET.—Light Retail and Prescribing, with own Specialities and Dentistry; returns £670; net profit £284; low rent, on lease; good house; best position; fully stocked; price £550.
- 8.—LONDON, N.—Good-class Cash Retail, Dispensing, and Prescribing Business; returns over £1,550; net profit £400 clear; good main-road position; stock and fixtures worth £900; price £1,100.
- 9.—LONDON, W.—Good-class Suburban Retail and Dispensing Business; returns about £1,000; net profit £320; large house and garden; main-road position; price £700.

10.—SOUTH COAST.—Several good Businesses on offer; returns £2,100; price £1,150; returns £1,470; price £900; returns £1,250, price £850; returns £1,100, valuation, about £700; returns £1,000, price £775.

11.—CO. DURHAM.—Unopposed Light Country Retail in pleasant town; returns £656; net profit £223; convenient house; low rent; price £300, or valuation.

12.—KENT.—Sound Light Retail Business, in best position; returns £1,400; net profits £314; books kept by accountant; good premises; own property; price valuation, about £750.

13.—EASTERN COUNTY.—Sound unopposed Village Business; no Oils or Paints; returns £750; net profit £300; low rent; nice house and large garden; price £525.

14.—GLAMORGANSHIRE.—Unopposed Light Retail, in rapidly growing district; returns £828; plenty of scope; net profit about £250; own property; selling through failing health; price £350; stock and fixtures worth £450.

15.—SOUTH YORKS.—Well-established Business in large town; returns £950, increasing; changed hands once in 40 years; illness sole cause of sale; valuation required, about £375.

16.—WILTSHIRE.—Old-established Light Retail, with Wines and Spirits; in same hands many years; returns about £900; plenty of scope; well-stocked shop; good house; price £600.

18.—LONDON, S.E.—Good-class Retail Business; no side-lines; returns £950; net profit £258; books properly kept; well fitted and stocked; price £650, or valuation terms arranged.

19.—NORTH LONDON.—Light Suburban Retail, in growing district; returns £15 weekly; low rent; modern-fitted shop; good stock; no near opposition; price £350; personally inspected.

BUSINESSES WANTED. We have a large number of cash buyers waiting to invest from £500 to £2,000, in sound concerns, and intending vendors are cordially invited to write for our terms. No sale, no charge.

VALUATIONS FOR STOCKTAKING. We undertake this work at a very low rate. Please write for our new and revised terms. 42 years' practical experience. See page 150 in "The C. & D. Diary, 1912."

BUSINESSES for DISPOSAL

3s. 6d. for 50 words or less: 6d. for every 10 words or less beyond, prepaid.

COLONIAL BUSINESSES.

We call the special attention of our Colonial subscribers to the opportunity this Supplement affords when they wish to dispose of their Businesses, of getting into touch with likely buyers either at home or in the Colonies.

LETTERS in reply to Advertisements may be addressed to this Office, and will be forwarded to the Advertiser for an additional charge of 6d.

Trade circulars, samples, and printed matter can in no case be forwarded.

BIRMINGHAM.—Very old-established Chemist's and Druggist's Business for Sale; exceptional terms to enterprising man; illness sole cause of disposal. Apply, F. London, Accountant, 227 Birchfield Road, Birmingham.

CHESTER (near).—Profitable Business; centre of good town; returns between £1,500 and £1,600; net profit 1911 exceeded £450; easy hours; plenty scope; good prices; thoroughly sound; trial allowed intending buyer; owner must go abroad for few years; willing to sell, or under proper conditions prepared to leave a few hundred pounds in business at 5 per cent., but unless able to invest £600 upwards please do not reply. 131/13, Office of this Paper.

EAST LANCASHIRE.—Genuine Drug Store for Sale in busy Manufacturing town, situate in good-class residential neighbourhood; average returns £12 weekly, all cash; no near opposition; Wine Licence; rent of house and shop very low; all at £230; clean, new stock; satisfactory reasons for disposal. Apply, "X. Y. Z." (133/33), Office of this Paper.

HERTFORDSHIRE.—Returns £900 to £950; would be greatly increased by Dentistry and Optical work; good shop and house, with fruit garden, stable, and outbuildings. Apply, "D. E. T." (132/35), Office of this Paper.

LANCASHIRE Town.—Old-established Light Retail; Gilbey's Agency; good house; lease; moderate rent; returns over £700; price, valuation, or reasonable offer considered. Apply, 131/30, Office of this Paper.

LONDON, S.W.—Business in middle-class district; rent lock-up £32; returns last year £440; having larger business, cannot give attention; good prospects under Insurance Act; low price for quick sale. 132/18, Office of this Paper.

LONDON Suburb.—Cash Retail, Dispensing, and Prescribing; in fine shopping centre; returns nearly £1,600; net profit £400; elegantly fitted Pharmacy and well stocked; good house; long lease; valuation of stock and fixtures required, about £1,000; trial allowed if wished. "Bona-fide" (134/40), Office of this Paper.

LONDON.—Wholesale Chemist's, Druggist's, and Hairdresser's Sundries Business, with good-class provincial customers, for Disposal; 18 years established; proprietor going abroad; price is value of stock and fixtures, etc., about £500 to £400. 135/7, Office of this Paper.

MANCHESTER Suburb.—Business for Sale; amount required £150. Apply, Messrs. H. L. Price & Co., 15 Fountain Street, Manchester.

MANCHESTER.—Suburban well-fitted modern Pharmacy for Sale; good-class and growing neighbourhood; profitable trade; turnover £500; capable of large increase; an exceptional opportunity for man with cash. Apply, 134/10, Office of this Paper.

MANCHESTER (near).—Mixed Business; working-class district; suit unqualified with good Prescribing experience; turnover £400, half net profit; owner having secured an appointment must sell at once; price £80, or near offer; stock and fixtures worth double; will bear strict investigation; a genuine bargain. 133/28, Office of this Paper.

MIDLANDS.—Exceptional opportunity; a sound Light Retail Business for immediate Sale, situated in best part of large town; returns about £2,000; modern, well-fitted shop; stock worth nearly £600; splendid house attached; price £600 cash for quick sale. Apply, "Prompt" (134/040), Office of this Paper.

NORTH DEVON.—Modern Pharmacy; returns, present rate, £600; scope for larger extension; unopposed, in town 3,000 population; owner retiring; rent £30; value of stock and fixtures £500; no reasonable offer refused. 133/37, Office of this Paper.

OLD-ESTABLISHED Business, with Medicated Wine Licence; principal thoroughfare to the Station; 4 Proprietary Preparations attached to the business, which may be separated; advertiser, after being in business nearly 50 years, wishes to dispose of same; personal interview necessary; a rare opportunity for two energetic young fellows. Ashford, Chemist, Northampton.

QUEENSLAND (small township); takings over £600 per annum last two years; development capable; chance for family man wishing to emigrate. Apply, 79/15, Office of this Paper.

SCOTLAND (East Coast Manufacturing Town).—Advertiser, who is going abroad, is open to receive offers for his Business, General Retail and Dispensing; well-fitted shop in good position of main thoroughfare; established nearly 30 years; stock, fittings, etc., at mutual valuation. For particulars apply 132/20, Office of this Paper.

SOUTH COAST.—Business making net profit of over £400 per annum; good house attached; excellent reasons for disposal; no agents; about £1,200 cash required. Apply, 133/25, Office of this Paper.

SOUTH OF ENGLAND.—Seaside, but all-the-year-round trade; first-class Dispensing and Retail Business, yielding a clear net profit of £450 yearly; good house; low rent; exceptional position; handsome fittings and large stock; price about £1,200. "Aiol" (134/400), Office of this Paper.

STAFFS.—As a going concern, Light Retail, Prescribing Business; residential and working-class neighbourhood; unopposed; average turnover last 2 years £520 per annum; up-to-date lock-up shop; rent £12 10s.; rates £2 10s.; suit unqualified; healthy place; population 2,000; invoices shown. "Genuine" (132/19), Office of this Paper.

SURREY (about 12 miles from London).—Cash Business; increasing turnover; few Patents; profits above the average; large district, working-class and residential; good house, side entrance; slight opposition; price £280, or near offer. 133/26, Office of this Paper.

SUSSEX.—Country Business, good class, Dispensing, Prescribing, and General; few Patents; some very good Proprietaries; average returns £400; net profit about £150; might be much extended under energetic man; shop well fitted and stocked; good house and garden; price £250. "Alpha" (133/36), Office of this Paper.

WEST Suburb.—Small Retail, with few Patents; large amount of Prescribing has been done; neglected through ill-health; low rent; good house, nice garden; established over 40 years; last owner nearly 10 years; reason for selling, death of owner; no reasonable offer refused. "F. H.," 100c Queen Victoria Street, E.C.

AN old-established Dispensing Business in county town; returning over £1,500, and giving £500 net profit; good house; nice shop, well fitted; rent £100; price, value of stock and fixtures; small goodwill; full investigation invited; vendor retiring. Baker, 174 Victoria Street, S.W.

CHEMIST'S Business; established 50 years; 3 miles from Wolverhampton, in fast developing district; only shop in the place; trade can be doubled with modern methods; being disposed of solely through sickness. Further particulars from T. H. Richards, 57 Queen Street, Wolverhampton.

EXCEPTIONAL Bargain.—Returns over £900, increasing; net profit £260; trade good; easily worked; same hands 18 years; price, valuation only, about £650, or any offers invited; would accept £450 cash and balance as arranged; comfortable residence; low rent. "Success" (135/10), Office of this Paper.

GOOD Drug Business for Sale in growing Lancashire town; main road; low rental; lease 9 years to run. Apply, personally or by letter, Dobson, Blackburn Road, Great Harwood.

IMMEDIATE Sale, owner going abroad, Proprietary Postal Business; well received; many testimonials from doctors and eminent people; has Royal Warrant; £200, or near offer. "H.M.C. Royal" (135/25), Office of this Paper.

£120.—Prescribing and Dental Business, with Optics and Surgical; London Suburb, main road; unopposed; established 1850 and only changed hands twice; doing £5 to £5 10s. average weekly; net profits average £2 15s., exclusive of Mechanical Dentistry; rent only £30; suit qualified or unqualified; personal affliction cause of immediate sale; a genuine Business and a sure living; first applicant has it. Write, "Statim" (134/6), Office of this Paper.

£130 or nearest offer for immediate Sale; S. Yorks; good working-class district; turnover last year about £500; net profit 33 per cent.; rent 10s. a week; house can be let off at 6s.; rates and gas very low; part of purchase money could stand over to suit purchaser. 132/29, Office of this Paper.

£200 or near.—S.E. on main road; rent £35 on lease; doing nearly £7 week under management; capable more; 5 rooms; small garden; good position; suitable Drug Store. "R.L." c/o Messrs. Evans Lescher & Webb, 60 Bartholomew Close, London, E.C.

SALES BY AUCTION.

SALE NEXT SATURDAY.

BUCKINGHAM, 24 CASTLE STREET.

TO CHEMISTS, DRUGGISTS, AND OTHERS.

THOMAS OSBORNE is instructed by the Executor of the late Mr. George Kingerlee to SELL by AUCTION, at the Assembly Rooms, Swan and Castle Hotel, Buckingham, on SATURDAY, AUGUST 31, 1912, the valuable BUSINESS PREMISES and DWELLING HOUSE, as occupied by the late Mr. George Kingerlee as a Chemist and Druggist for many years past, together with the goodwill and stock-in-trade.

The above affords a good opportunity for the purchase of an old-established and lucrative Business.

Solicitors, Messrs. Whitehorns & Law, Buckingham. Mr. Thomas Osborne, F.A.I., Auction and Estate Offices, Wolverton, Stony Stratford, and Buckingham.

TO LET.

CHARLTON, Kent.—Remarkable for no empty private houses; Shop and House to be Let, opposite Railway Station, next Post Office and S.W. Bank; population 30,000; suit Chemist. "Owner," Wellington Mansions, Charlton.

SLOUGH, Bucks (18 miles from Paddington).—Good opening for Chemist in one of main streets; new double-fronted Shop with dwelling-house, back entrance, garden, gas, water, good sanitation; ready for occupation; rent £45; rates low; seen by appointment. Edward Bowyer, Estate Agent, Slough.

A SHOP suitable for a Chemist in a rising and thickly populated neighbourhood, with no opposition near; low rent, with all conveniences. Apply, J. Sands, No. 74 Seely Road, Tooting Junction, S.W. Inspection of the neighbourhood invited.

SHOP to Let.—House and Shop to Let in good position; fitted up for Chemist; rent £38; working neighbourhood; No. 278 Haydens Road, Wimbledon. Apply to T. Jones, 286 Upper Richmond Road, Putney, S.W.

60 FORTUNE GREEN ROAD, West Hampstead, N.W.—Excellent opening for a Chemist (this business not being represented in the immediate neighbourhood); shop and 7 rooms; rent £55 per annum on lease. Apply to Owner, Sandown, Finchley Road, Golder's Green.

BUSINESSES WANTED.

A GENUINE small Business required, about £100 to £120. State full particulars, "J. W. D.," 30 Cleaver Street, Kennington Cross, S.E.

CHEAP Business wanted; London district or neighbouring county; without scientific side-lines; confidential communications invited from gentlemen retiring or selling Branch and really open sell cheaply for cash before unremunerative Dispensing begins. Usual particulars, turnover, rent, tenancy, bottom terms (valuation basis or lump sum) to "Belper" (131/5), Office of this Paper.

PHARMACIST wants a Business which can be increased; locality no object; net profit about £150 now; good house essential. Write (in confidence), giving full particulars and price, to "Scalpel" (135/14), Office of this Paper.

PREMISES wanted as Pharmaceutical Factory; Willesden or N.W. district preferred; rental about £100 to £150. Details to "X. Y. Z." (130/32), Office of this Paper.

FOR SALE.

FOR immediate Sale, the Fittings of a Pharmacy, comprising Mahogany Drug-fixture and Drawers, 16 ft. 8 in., Wall-case, Mahogany and Plate Glass, 12 ft. 6 in., 2 Mahogany Counters, with Cases in front, 156 York glass Recess Labelled Bottles, with out stoppers. Buxton & Co., Pharmacists, Queen's Road, Clifton.

FOR Sale, Stock and Fixtures of Chemist's shop, comprising 700 Bottles and Jars, with contents, about 500 empty Medicine Bottles and Sundries, also 7 glass Show-cases; no reasonable offer refused. Chubb, 8 & 10 Lordship Lane, East Dulwich, S.E.

GOLDEN opportunity to energetic man to work up neglected Business; established 25 years; Mahogany modern fittings, bottles, jars, &c.; complete, and stock valued about £130; will accept £50 for immediate sale; house 8 rooms, side and back entrances; nominal rent of £45 per annum; East Dulwich, adjoining Railway Station. Apply, Martin & Co., Estate Agents, Grove Vale, East Dulwich, S.E.

TO Chemists commencing Business or wishing to augment Stock. —For Disposal, Fixtures, Bottles, Jars, etc., together with small remaining Stock; reasonable offer accepted; expiration of lease reason for disposal; inspection invited to-day, August 24, 25 (evening), and 26, as it is not possible to describe; splendid chance for beginners. Thomas's Drug Stores, 99 High Street, Notting Hill Gate, W.

PARTNERSHIPS.

JUNIOR as Partner in good-class Dispensing and Photographic business; entire control; capital required about £225; return £2 per week and half net profits annually, about £50. Apply, 7/450, Office of this Paper.

MANAGER wanted shortly, with a view to succession or Partnership, to take charge of profitable and flourishing Branch business; must be good Salesman and business-builder; the business is a Light Retail with Photographic and Dispensing; able to introduce Optics if possible. Apply, "Opportunity" (133/30), Office of this Paper.

MANUFACTURERS.—A gentleman with unique experience in the introduction and distribution of Proprietary articles, considerable Advertising experience, and valuable Colonial connection, is open to treat for a Partnership in a well-established article, or for the Purchase of same; a single line preferred; communications giving full particulars from principals only will be treated confidentially; thorough investigation required; advertiser has first-rate references and a considerable amount of capital. "Manufacturer," c/o Street's, 30 Cornhill, London.

WHOLESALE Drug and Produce Export Business for Sale; long standing; owner going abroad; good knowledge of French essential; owner would stay a little time to help buyer; accountants' figures; principals only. 132/7, Office of this Paper.

QUALIFIED Chemist to take position as Managing Director in private Limited Company; sound and paying Retail Businesses; chartered accountant's audit; about 700 £1 shares must be taken up (from present Manager, who is retiring); full investigation courted. Apply, 130/11, Office of this Paper.

AGENCIES.

INDIA.—Travelling Representative of several well-known firms is open for one or two additional Agencies; sailing in September to work native and European trade in all business centres; highest references and guarantees. Communicate with "R. C. L.," Craig's Court House, Charing Cross, S.W.

MANUFACTURERS wishing for an Agent in London should communicate with Thomas Hopkinson & Co., 31 Queen Victoria Street, E.C. Telephone 8590 City.


SITUATIONS OPEN.

3s. 6d. for 50 words or less; 6d. for every 10 words or less beyond, prepaid.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an Additional charge of 6d.

RESULTS
OF ADVERTISING IN THIS SUPPLEMENT
LAST WEEK AUG 17 1912
NATURE OF ADVT. REPLIES

TRAVELLER (FOR BUSINESS)	18
MAN (FOR WHOLESALE)	14
SIT. WANTED	11
MANAGER	9
LOCUM (FOR HOSPITAL)	9



This Blackboard demonstrates that Advertisers using these columns get a ready response to their announcements. The figures only refer to some of the letters RECEIVED AT OUR OFFICE on behalf of Advertisers who use a number or nom de plume.

TO SAVE TROUBLE.

MANY correspondents answering advertisements in this Supplement enclose remittances to cover the cost of forwarding their letters to advertisers who prefer to be addressed c/o this Office. The Publisher desires to make it clear that this is quite superfluous, and perhaps this reminder will obviate the necessity of the frequent return by him of such remittances.

ANSWER IN TERMS OF THE ADVERTISEMENT AND

REMEMBER you are one of possibly hundreds applying for the same position. Put your case before the advertiser so that he may be able to form a MENTAL PICTURE of your suitability.

BE BRIEF BUT CLEAR—Millions of applications are consigned to the waste-paper basket UNCONSIDERED, because the reader cannot form this picture from the inadequacy of the materials set before him.

RETAIL.

BALHAM.—Assistant required by 31st, married, house found; must be reliable and experienced, with undeniable references, used to Counter work and Dispensing, with Photographic knowledge; abstainer preferred; good salary to suitable man. Full particulars as to age and experience, stating salary required, and enclosing photo, Cooper, Chemist, 133 High Road, Balham, S.W.

BATH.—Wanted, gentlemanly Assistant, experienced, unqualified, age about 26; must be neat and accurate Dispenser and good Salesman; high-class Store; short hours; weekly half-holiday; no Sunday duties. Apply, with full particulars, references, salary, etc., to Cater, Stoffell & Fortt, Ltd., Bath.

BOURNEMOUTH.—A Junior (September 23), with Dispensing and Photographic experience. State full particulars, enclosing photo, to Frank Rye, 119 Poole Road, Bournemouth West.

BRIGHTON.—Wanted, gentlemanly, unqualified Assistant, age about 25-30; indoors; good Dispensing and Counter experience essential. State salary required and usual particulars, enclosing photo, to Mr. E. Beckwith, 43 Dyke Road, Brighton.

BRIGHTON.—Messrs. Black & Co., Phe's and Opticians, 81 St. James's Street, require smart Junior Assistant (20-25); one used to Dispensing and Stock. When applying please give full particulars, salary required (outdoors), and enclose photo if convenient; Juniors wanting a permanency preferred; good chance to learn the Optical business.

BRISTOL.—Junior, unqualified, age 21; outdoors: Retail and Dispensing; hours of business 8.30 to 8.30, 9.30 Saturdays; alternate Sunday evenings. State age, height, salary required, and references, to Presley, Chemist, Tram Centre, Bristol.

CAMBRIDGE.—Wanted early in September, an Assistant; good Dispenser, knowledge of Photography; outdoors; permanency. Send usual particulars and photo if possible, Turner, The University Pharmacy, 36 Trinity Street, Cambridge.

CARDIFF.—Wanted, Junior or Improver, whole or part time (outdoors), for Mixed Suburban business. Apply, giving full particulars, age, height, salary, experience, etc., to A. J. Bellamy, Chemist, Cardiff.

CRYSTAL PALACE.—Qualified Assistant wanted, used to Photographic work; outdoors. Apply, 21 Westow Hill, Norwood, S.E.

DONCASTER.—An outdoor Assistant required in a good General Family business, age 22 to 26. Apply, with photo, stating age, height, experience, references, and salary, to M. H. Stiles & Son, Doncaster.

HONOR OAK PARK.—Junior or Improver wanted. Apply, with full particulars, Hankinson, 62 Brockley Rise, S.E.

KENSINGTON.—Junior, about 22, early in September, with good experience in Dispensing. Apply, stating salary and references, to R. S. Dampney, 87 Abingdon Road, Kensington, W.

LIVERPOOL.—Cash Chemists offer good remuneration and commission, ample scope, and excellent prospects to a well-recommended man, with or without qualification, who can work and manage quick trade Branches. Copies of testimonials and full particulars to Liverpool Medical, Dental, and Pharmaceutical Agency, 55 Shaw Street, Liverpool. Telegrams, "Finson, Liverpool."

LIVERPOOL.—Unqualified Assistant (outdoors), about 22; capable, energetic, and obliging. Apply, giving full particulars as to salary, etc., and enclose photo, also stating when at liberty, W. Ashworth, Pharmacist, Seafortb.

LONDON, N.W.—Experienced Assistant wanted; must be a neat, quick, and accurate Dispenser, a good Salesman, and accustomed to good-class business; age about 25; outdoors; only one kept; personal application preferred. If by letter, give full particulars, stating salary, and enclose photo, T. F. Elton, 28 Endsleigh Gardens, Euston Square, N.W.

LONDON.—Leading firm of Chemists have an opening for young qualified Assistant in Dispensing Department. Give name of last employer as reference and state wages required, 131/400, Office of this Paper.

LONDON, W.—Assistant wanted for high-class Dispensing business; qualified or unqualified. Apply, R. H. Parker, 35 Clifton Road, Maida Vale, W.

LONDON, West End.—Wanted for October 1, a qualified Assistant, accustomed to good-class business; indoors. Apply, giving usual particulars, to H. S. Hairsine, 47 Haymarket, London.

LONDON, S.W.—Assistant wanted, about 21 (indoors), for good-class Dispensing and Retail, Photography; 2 kept. Apply, stating age, height, experience, and salary required, to Feltwell & Son, Chemists, Church Road, Barnes, London, S.W.

LONDON, Mayfair.—Immediately; Assistant required (25 to 30), qualified or unqualified (outdoors), for first-class Dispensing business. Usual particulars of experience, etc., to "Pharmacist," 99 Cambridge Street, Warwick Square, S.W.

LONDON (near), Sutton, Surrey.—Wanted, October 1, gentlemanly Assistant; must be smart and about 25 years of age; qualified preferred; reasonable hours and salary. Apply, stating salary expected, enclosing photo, to Cooper, Chemist and Optician, Sutton, Surrey.

LONDON, N.—Qualified Assistant; good Dispensing experience; indoors; comfortable bachelor's quarters. Full particulars, Saunders, Chemist, Highgate.

LONDON, N.W.—Wanted, unqualified Junior in good-class business; salary £40 (indoors). Please state age, height, experience, and enclose photo if possible, "Smilax" (135/34), Office of this Paper.

MALVERN.—Assistant (indoors), accustomed to good class of business and reliable Dispenser; one having a knowledge of Photography preferred. Apply, stating experience, salary required, age, height, and enclose photo if possible, to W. H. Jones, Pharmaceutical Chemist.

MANCHESTER Suburb.—Required, an experienced Assistant, well up in Dispensing, about 24 years of age. Apply, stating experience and salary required (outdoors), with recent photo, to "Pharmacist," c/o Messrs. Oldfield, Pattinson & Co., New Bridge Street, Manchester.

MANCHESTER.—Locum required at once, for 3 or 4 weeks. Apply, Matz, Chemist, Cheetham Hill Road, Manchester.

MEXBOROUGH.—Junior Assistant wanted immediately. Give full particulars re experience, and salary required, in first letter, Sinclair, 1 Market Street, Mexborough.

MIDLANDS.—Assistant wanted in a good-class Country business, 23-25 years of age; good experience, gentlemanly manners, well up in Dentistry, and capable of taking Management of Dental Department (not Mechanical). Apply, with full particulars and salary required, to 133/10, Office of this Paper.

PERTH, N.B.—Chemist's Assistant (Junior) wanted immediately. State age, experience, salary, and testimonials to Harley, Chemist, Perth.

RICHMOND.—Competent Assistant, qualified, about 24, for good-class Dispensing business. Apply, with full particulars, to J. Parrott, Richmond Hill, Surrey.

SCOTLAND.—Chemist, qualified; good Window-dresser, with quick Store experience; must be a first-class Salesman; a good prospect to a capable man who can increase business. Testimonials and fullest particulars to Davidson, Cash Chemist, Tollcross Corner, Edinburgh.

SHEFFIELD.—Manager; qualified; 25 to 35; good address; good Prescriber, Photography and Dispensing; opportunity for Optics; permanency to suitable person. State salary and enclose photo to "Oedipus," 136 Psalter Lane, Sheffield.

SOUTHSEA.—Experienced, gentlemanly Assistant, single (outdoors), age 25 to 30, in good-class Dispensing and Retail. State full particulars, references, salary required, and enclose photo to W. A. Bell, The Strand, Southsea.

ST. GEORGE'S HOSPITAL, S.W.—Assistant Dispenser required. Minor qualification, age not over 30; commencing salary £100 per annum. Applications, with copies of three testimonials, to be sent to the Chief Dispenser by September 15. Ladies ineligible.

TORQUAY.—Junior Assistant, unqualified (as Second), indoors, for third week in September, for good-class Dispensing and Retail business; age 22-24. Please state height, experience, references, and salary required, H. F. Bourne, 11 Strand, Torquay.

TUNBRIDGE WELLS.—Qualified Junior Assistant (indoors) for Dispensing business; principal non-resident. State usual particulars, salary required, enclosing photo, Howard & Son, Pharmacists, Tunbridge Wells.

WAKEFIELD.—Unqualified Assistant; outdoors; must have had good-class experience, with some knowledge of Photography. Apply, with full particulars of salary, etc., to C. Cumberland, 60 Westgate, Wakefield.

WESTGATE-ON-SEA.—Wanted at once, gentlemanly Junior Assistant, well up in Dispensing and Photography; outdoors. Apply, stating age, experience, and salary required, with photo, to Fyman, Westgate-on-Sea, Kent.

WESTON-SUPER-MARE.—A reliable and competent Assistant required, abstainer; accustomed to good-class Retail and Dispensing. Send usual particulars, age, height, references, and salary required, etc., to Edwin Norman, Pharmacist, 35 High Street, Weston-super-Mare.

WORTHING.—Assistant wanted; unqualified; good-class business; seaside town. Send particulars, with references, to W. Aston, Pharmaceutical Chemist, Worthing.

ASSISTANT (20-22), early in September, for Dispensing and Photographic; unqualified. Usual particulars, with salary required (indoors), to Cooper, 107 London Street, Reading.

ASSISTANT wanted at once, with a view of Purchasing at valuation a Chemist's Business in a populous Colliery district, Glamorganshire; returns between £800 and £900; Patents under £200; valuable Proprietaries; no opposition; or to an immediate purchaser £350 will be accepted; a chance seldom met with. 132/33, Office of this Paper.

BRANCH Manager, qualified, wanted at once; satisfactory references required; hours 8 to 8, Fridays to 9, Saturdays to 10; no Sunday duty; half-holiday weekly; permanent situation to suitable man. Age, salary, references, and photo to Managing Director, Henry Hodder & Co., Ltd., 5 Nelson Street, Bristol.

CAPABLE unqualified Assistant required; good Salesman and Dispenser; permanency and good salary for suitable man. Timothy White Co., Ltd., Chemists, Portsmouth.

COMPETENT Junior for small Drug Store; energetic worker, steady; able to Prescribe; time for reading; comfortable home. State full particulars, salary, etc., "W. D. S." (135/2), Office of this Paper.

IMPROVER, or Junior wanting time for study, for small Branch near Manchester. Apply to Rushtons', Cash Chemists, Farnworth, near Bolton.

JUNIOR, indoors; good-class Dispensing and Photographic. State salary required to A. Cartwright, Pharmacist, Henley-on-Thames.

JUNIOR, 22 to 25, accustomed to good-class Dispensing and Photographic business; outdoors; no Sunday duty. Apply, with photo, stating age, height, experience, and salary required, H. H. Marshall, Pharmacist, Moseley.

JUNIOR Assistant required. Please state age, height, experience, references, when disengaged, and salary required in first letter to "J.", 114 Addison Road, Hove.

JUNIOR Assistant wanted (indoors) for September 1, for good-class business, with knowledge of Photographic trade. State salary required in first letter, also references, Williams & Smith, Horsham.

JUNIOR, unqualified; would suit youth just out of apprenticeship; comfortable berth with progressive salary. State full particulars in first letter, 131/04, Office of this Paper.

GENTLEMAN required as Dispenser, under 30 years, in private Surgery in London; Sunday duty; good references and character essential. Address, 135/35, Office of this Paper.

LADY Dispenser, Bookkeeper, etc., experienced, wanted towards the end of September (outdoors); one able to help at School Inspection and do a little Teaching preferred. Apply, with references, age, and full particulars, to Dr. Buchanan, 20 Station Road, Watford, Herts.

LADY Assistant required for Country business; must be able to Dispense; Hall qualification preferred; willing to assist in all departments of the business and in light household duties; quiet, easy place for willing Assistant; salary £18 (indoors). Send references, state age and experience, Greatorex, Banwell, near Weston-super-Mare.

LADY qualified Assistant; Scotland; good references. Full particulars, salary required, 130/6, Office of this Paper.

LEWIS & BURROWS have vacancies for one or two first-class Assistants. Apply, with full particulars, to 146 Holborn Bars, E.C., enclosing photograph.

LOCUM, qualified, for about 3 weeks. State age, salary (outdoors), and give references, 130/5, Office of this Paper.

LOCUM required for fortnight, from the 26th preferred; must be qualified and thoroughly reliable. State age, experience, salary required (outdoors), and references to Hodges, 164 Rushey Green, Catford, S.E. Phone 61 Lee Green.

MESSRS. BARNARD & SON, 309 Hackney Road, London, have a vacancy for a Junior; one accustomed to a middle-class trade preferred; 2 kept; half-day off weekly. State salary (indoors), when disengaged, references, etc.

MILLER GENERAL HOSPITAL FOR SOUTH-EAST LONDON, Greenwich Road, S.E.—A lady or gentleman (lady preferred) holding the Minor qualification is required to act as Locum Tenens from September 2 to 14 inclusive; age not over 40. Applications, with testimonials, stating date of registration, should be forwarded to the Pharmacist. August 14, 1912.

OCTOBER.—Wanted, qualified Assistant at the beginning of October by large firm of Chemists, West of England. Apply, with full particulars as to experience, etc., to "C. E. B.," c/o T. Morson & Sons, 14 Elm Street, Gray's Inn Road, London, W.C.

OUTDOORS.—Wanted, for Light Retail and Prescribing business in Agricultural town, an energetic and competent Junior Assistant, of good address, and good Counterman; unqualified. Apply, with references, stating salary required, etc., to "S. S." (133/24), Office of this Paper.

PART-TIME, City.—Young qualified Assistant required about 3 days weekly in brisk business; please state previous experience and terms; vacancy now or September. 132/1, Office of this Paper.

PORTER (Junior), accustomed to a Chemist's business, under 25 years of age; good Packer. Apply, Secretary, 80 Gloucester Road, South Kensington, S.W.

QUALIFIED Assistant required; early prospect of Management; good and progressive salary; short hours. Apply, Timothy White Co., Ltd., Chemists, Portsmouth.

QUALIFIED Assistant, about 25; exceptional advantages to one seeking Optical experience; must have had a good Counter and Dispensing experience; comfortable and progressive position for permanency. State full particulars and salary required (indoors), enclosing photo, to Body, 97 The Broadway, Southend-on-Sea.

QUALIFIED Assistant (outdoors), about 23 years of age, accustomed to good-class Dispensing business. Symes & Co., 14 Hardman Street, Liverpool.

QUALIFIED Dispenser required in a London Retail establishment; hours 8.45 A.M. to 6.15 P.M., Saturdays to 1 P.M.; no Sunday duty. Apply, by letter, stating age and salary required, to "Mel," c/o Streets, 30 Cornhill, E.C.

QUALIFIED Assistant, about 24, wanted for about 6 weeks' holiday relief; must be used to first-class Dispensing and Family business; to a suitable gentleman a permanent post is offered. Apply, with photo and full particulars of experience, salary required, etc., to R. C. Harrison, Ph.C., The Hindhead Pharmacy, Grayshott.

QUALIFIED Dispenser for high-class business in the West End; applicants must be of good address and produce the highest credentials. 131/4, Office of this Paper.

SMART Junior required about the middle of September; indoors; comfortable berth and easy hours. Apply, stating age, salary required, and enclose photo and references, to Withers, Chemist-Optician, Faversham, Kent.

UNQUALIFIED Assistant for modern Store business in busy Midland town; age 20 to 25 years; hours moderate; state age, experience, salary required, and give references, enclose photo if convenient. Apply, 135/7, Office of this Paper.

WANTED, London, S.E., qualified Manager for Branch; salary moderate; commission 5 per cent. and 7½ per cent.; live out. Apply or write, H.O. Drug Co., Ltd., 78 Upper Tulse Hill, Brixton Hill, S.W.

WANTED at once, a smart Junior Assistant; indoors; must have had Dispensing experience and well recommended. Apply, with full particulars, and if convenient enclose photo, to P. Stacey, Pharmaceutical Chemist, High Street, Teddington, S.W.

WANTED at once, a qualified Junior Assistant (outdoors) for Dispensing business. Apply, with full particulars, salary required, and photo, to Ivor P. Barnes, 205 Knightsbridge, London, S.W.

WANTED, October 1, qualified Assistant; good Dispenser and practical Pharmacist; board and lodging found. W. Gowen Cross & Son, Shrewsbury.

WANTED, qualified Assistant; must have good references. Apply, stating age, salary required, etc., to Wilkins, Ltd., Perry Barr, Birmingham.

WANTED, smart, gentlemanly Assistant, unqualified; outdoors; neat and accurate Dispenser; knowledge of Photography; weekly half-holiday; every third Sunday duty. Please give full particulars, salary required, to Jennings & Co., Hoylake, Cheshire. Applications not answered in 4 days declined.

WANTED at once, Junior Assistant, about 20 (outdoors), for middle-class trade; must be well recommended. Please state full particulars to Nidd, Chemist, 714 Rochdale Road, Manchester.

WANTED immediately, in a Lancashire Manufacturing town, a qualified Dispenser and Bookkeeper. Apply, stating references, age, salary, to 22/3, Office of this Paper.

WANTED, qualified Manager for Branch; Light trade; Extractor preferred; good position for smart man. Apply, stating salary required, with reference, age, etc., to 130/110, Office of this Paper.

WANTED next month, for the West End, qualified Assistant, age 23-25 (outdoors), but to sleep in; must be a good Dispenser. Apply, by letter, giving full particulars, and if convenient enclose photo, to "West End" (133/1), Office of this Paper.

WANTED at once, smart Junior Assistant. Spiuk & Co., 27 Tottenham Court Road, W.C.

YOUNG qualified Assistant wanted for 2 or 3 months from September 10; City business; outdoors. 131/40, Office of this Paper.

YOUNG Junior Assistant required, with good Counter experience. Please state age, height, experience, and salary required in first letter to Bishop & Vincent, 460 Holloway Road, London.

WHOLESALE.

DRUG Invoice Clerk wanted. State age, experience, and salary required, Ayrton, Saunders & Co., Ltd., Liverpool.

ENTERING or Invoicing.—Clerk wanted (Junior) for London Wholesale trade; some experience of Drug trade necessary; age 16 to 18; good writing essential. Write, with particulars, and state wages required, to "Zero" (23/72), Office of this Paper.

JUNIOR Invoice Clerk wanted, with experience; good prospects. Apply, stating wages required, Ayrton, Saunders & Co., Ltd., 34 Hanover Street, Liverpool.

PERFUMERY and Toilet Goods.—Energetic, capable Salesman, acquainted with the trade, may secure the Agency for our fine, unique line on a liberal commission basis; sample line furnished; fair treatment assured; goods have attracted sales to many best buyers in Great Britain and Colonies. State age, experience, references, The Theo. Ricksecker Co., New York, U.S.A.

REPRESENTANT.—Fabrique de produits pharmaceutiques cherche pharmacien français de 25 à 30 ans, parlant si possible l'anglais pour visiter le Corps Médical. Adresser offres avec références et photo au bureau du Journal. 22/56, Office of this Paper.

REQUIRED, by leading London Manufacturers of all fine Chemicals for Pharmaceutical and technical purposes, an experienced Traveller, to call on Wholesale Druggists, Manufacturing Chemists, Export Merchants, and other large buyers of the above-named products in London and the whole of the U.K. Please send full particulars regarding previous experience, stating salary expected, to "Z. A. B. C.," c/o Deacon's, 7 Leadenhall Street, London, E.C.

REQUIRED, by old-established firm Manufacturing Essences, a first-class Representative for London and Travellers for U.K.; must have genuine connections with Confectioners, Perfumers, Chemists and Druggists. Write, stating number of customers and ground covered, to "Essences" (134/38), Office of this Paper.

TRAVELLER, with good connection, calling on Chemists on South and South-East Coast, wanted, to carry range of light samples on commission. Write for interview to C. T. Scott & Co., 24 Aldgate, E.C.

WANTED, a capable man with good all-round experience in the Manufacture of Proprietary Articles and Pharmaceutical Preparations; permanency and good opening to the right man not afraid of work. "Specialities" (257/45), Office of this Paper.

WANTED at once, experienced Grinder, with thorough knowledge of the Drug and Spice trade requirements. Apply, stating salary required, previous experience, etc., to Goodall, Backhouse & Co., White Horse Street, Leeds.

WANTED, in Lancashire, Lady Attendant to Fit and Repair Belts, Trusses, etc. State age, experience, and salary required to "X. Y. Z." (22/6), Office of this Paper.

WANTED, by old-established Manufacturing firm of Druggists' Sundries, energetic Traveller calling upon Wholesale Druggists and Stores in Provinces; commission only; good references. Address, "Sundries," c/o Deacon's, Leadenhall Street, E.C.

WANTED, by a firm of Wholesale Druggists, an Assistant for Dry Counter; preference will be given to a man able to assist with the compiling and despatching of orders. State age and wages required, 134/39, Office of this Paper.

WET FLOOR.—Competent man, aged about 23-24, wanted by London Export Druggists. Write, stating full particulars of previous experience, wages expected, and if disengaged, to 20/370, Office of this Paper.

SITUATIONS OPEN

(Colonial, Indian, and Foreign).

3s. 6d. for 50 words or less; 6d. for every 10 words or less beyond, prepaid. Replies addressed to this office will be forwarded to the advertiser for an additional charge of 6d.

SOUTH AFRICA.—Qualified Assistant wanted in healthy country town; salary £17, £18, £19 per month for first, second, and third years respectively; 3 years' agreement to be signed; second-class passage paid; good chance for smart young man. Apply, 135/30, Office of this Paper.

JAPAN.—A thoroughly capable, gentlemanly, young man, about 25, qualified, required for a first-class English Chemist's in Japan; 5 years' agreement; passage paid out and home, and liberal terms to suitable candidate. Apply, with full particulars of previous experience, to 20/37, Office of this Paper.

SITUATIONS WANTED.

1s. for 12 words or less; 6d. for every 10 words or less beyond, prepaid.

NOTE.—Replies can be addressed to this office and forwarded to the Advertiser for an Additional charge of 6d.

[HOME]. RETAIL.

ASSISTANT; 21; London or seaside preferred; easy hours; excellent Counterman; West-End Dispensing. V. Arnfield, c/o P. R. Hill, Esq., 90 High Street, Gorleston-on-Sea.

ASSISTANT; 22; best Dispensing Counter experience; good references. S. Alder, Bracknell, Berks.

ASSISTANT; 22; 6 years' experience, Dispensing and Stock and Counter; first-class references; disengaged September 29. 134/4, Office of this Paper.

DISENGAGED; competent, energetic Branch Manager, Assistant (or Locum not objected to); Drug Stores; unqualified; middle-age; Prescriber and Extractor. "Rhamni," 190 Sheringham Avenue, Manor Park, E.

FRENCHMAN (16), speaking English, desires situation in Retail Sundries or Toilet Article business; special knowledge of Brushes. Raymond Legendre, 85 Shepherd's Bush Road, W.

GERMAN Chemist, with English and French experience, seeks post as Dispenser and Assistant for October 1. F. Müller, c/o F. G. Curtis, Pharmaceutical Chemist, Folkestone.

JUNIOR; disengaged October 5; 6 years' practical experience in high-class Dispensing business; Northern or Midland Counties preferred. 133/34, Office of this Paper.

JUNIOR desires situation in Lancashire town; Manchester or Liverpool preferred; tall and energetic; used to high-class Dispensing. Apply, "Gentian" (125/18), Office of this Paper.

JUNIOR; 22; 4½ years' experience, Dispensing and Retail; knowledge of Photography. C. Fairhead, Brick House, Peldon, Colchester.

LADY Dispenser, Hall qualification, seeks morning and evening engagement; engaged during afternoon. 130/21, Office of this Paper.

LADY Dispenser; Doctor or Retail; 4 years' experience; highest references. 127/34, Office of this Paper.

LADY, qualified, as Manageress; excellent experience and testimonials; London. Apply, 135/23, Office of this Paper.

LOCUM TENENS; disengaged September 2. Reply, by letter, Jones, 2 Glanmor Terrace, Llanelli.

LOCUM or Assistant; disengaged; thoroughly experienced, competent, reliable; well recommended. "Chemicus," 68r Station Road, Camberwell.

LOCUM; 34; qualified; highest references; Dispensing, Photography; disengaged. Collitt, 12 Sydenham Terrace, Louth.

LOCUM; qualified; reliable; all-round experience; disengaged August 24 one week; town or country. "Minor," 12 Tyrwhitt Road, Brookley.

LOCUM or otherwise until November; qualified; Extractor; fluent French. "Chemist," 77 Astonville Street, Southfields, S.W.

LOCUM or Manager; qualified; best experience and references. "W. S.," 163 Eswyn Road, Tooting, S.W.

LOCUM or permanency; disengaged; 33; sound all-round experience; good references. "Extractor," 40 Dalzell Road, Stockwell, S.W.

LOCUM; 49; experienced, town and country; abstainer; disengaged. "Yorks," 21 Broadway Parade, Grouch End, N.

M.P.S., D.B.O.A. (27), qualified Optician, married, requires position as Branch Manager; 11 years' all-round experience; Dispensing, Photographics, Prescribing; excellent references; permanency. Fletcher, 97 Broadway, Southend-on-Sea.

MANAGER or Locum; good-class experience and references; disengaged; qualified. Linden, Church Road, Horley.

MANAGER or Senior. "S.," Boutham House, Drummond Road, Skegness.

MANAGER; steady, reliable, energetic; good all-round experience; good references; unqualified; moderate salary. "Chemist," 1 Egerton Grove, Stretford Road, Manchester.

MANAGER; permanency; live on premises if required; 34; Pharmacy or Store anywhere. "Statim," 33 Argo Road, Waterloo, Liverpool.

MORNING work required in London about the end of September; qualified; good experience and references. Gladden, 82 Agamemnon Road, West Hampstead.

PART-TIME; qualified; afternoons and one evening weekly. "Pharmacist," 198 Jamaica Road, S.E.

PERMANENCY; Manager or Assistant; Drug Stores; Agricultural, Prescriber, Extractor; age 34. Apply, Gill, 21 Granville Street, Cheltenham.

PHARMACIST; 27; West-End Dispensing experience; disengaged September. "Smith," 436 High Road, Streatham.

QUALIFIED; Locum; reliable; disengaged August 24. "Chemist," 5 The Exchange, London Road, Thornton Heath.

QUALIFIED; elderly, active; experience; references; Locum or permanency; moderate terms. "P.," 87 Chalk Farm Road, N.W.

QUALIFIED desires experience; country preferred. "C.," Rosemont, Harbledown, Canterbury.

QUALIFIED Manager; 31; thoroughly experienced all branches; good references; disengaged. "Iridin," 37 Mattock Lane, Ealing.

QUALIFIED; Manager, view succession; highest references; obliging, competent. "Alpha," 82 Park Street, Camden Town.

QUALIFIED; 49; Branch Manager or Assistant; thoroughly reliable and experienced. 133/38, Office of this Paper.

QUALIFIED; 36; Manager, Senior; Counterman or Dispenser; good all-round experience; first-class references; London or South Coast preferred. 132/31, Office of this Paper.

QUALIFIED man, with good varied experience, will be at liberty shortly; Partnership or share in sound business entertained; single; any class trade or locality. "Enterprise" (134/1), Office of this Paper.

QUALIFIED; 32; Manager, with or without view succession; good experience; early September. "Lithia" (131/24), Office of this Paper.

QUALIFIED, excellent all-round experience, sober habits, Scotch, single, seeks permanency; Wholesale or Retail; undeniable references. "Cap" (128/17), Office of this Paper.

QUALIFIED; 25; tall; best all-round experience; excellent references. "M.P.S.," c/o Sumner, Chemist, Rickmansworth.

QUALIFIED Locum; 24; Lancashire or Yorkshire districts. Moorhouse, 35 Spaines Road, Huddersfield.

QUALIFIED; Branch Manager or Locum; 14 years' high-class experience, London, provinces; disengaged August 30; abstainer; references. Tavecer, York House, Hayward's Heath.

QUALIFIED Chemist; Manager or Assist; good experience; references; London or near. "G.," 119 Ledbury Road, W.

QUALIFIED Manager; good experience and references; middle-aged; disengaged early in September. 131/29, Office of this Paper.

RELIEF, Manager, Loom; disengaged; experienced; reliable; London or Country. "Simlax," 288 Elgin Avenue, W.

SENIOR Assistant; disengaged; reliable and trustworthy; experienced in all branches of the trade; unqualified; married; permanent or temporary. "B.," 68 Thirlwell Road, Sheffield.

TO Chemists.—Junior Assistant seeks post; 23; trustworthy, obliging; disengaged; good references. "O.," 39 Lord Street, Lower Broughton, Manchester.

UNQUALIFIED; outdoors; 30; Window-dresser, Photographic, Dispensing, Optics. "Pyramidin" (132/30), Office of this Paper.

UNQUALIFIED wants Branch Managership of Mixed business, returns about £500, with or without view to succession; country preferred, but not essential; steady, reliable; 40 years old; Prescriber, Extractor; good references; moderate salary. White, o/o Deakin, Pharmacist, Clown, near Chesterfield.

UNQUALIFIED; married; 16 years' experience; capable Dispenser, Counter, and Photography; energetic. "T.," Cartref, Warwick Road, Sutton, Surrey.

UNQUALIFIED Assistant; 30; good experience; hard worker; disengaged; relief or permanency. "Assistant," 1 Jermyn Street, Sleaford.

UNQUALIFIED; middle-aged; Counter, Prescribing, and expert Photography. 36 Church Street, Woolwich.

UNQUALIFIED Assistant; outdoors; 12 years' experience; London and provinces; passed Preliminary; permanency or Locum. "Radix," 15 Watery Lane, Birmingham.

UNQUALIFIED Assistant (32), married, gentlemanly appearance, desires post; highest references, but out of the profession some time; will accept moderate commencing salary. 131/34, Office of this Paper.

WHOLESALE.

Trade circulars, samples, and printed matter can in no case be forwarded.

CHEMIST, energetic and of good appearance, would like to Represent good house on small salary and commission basis; has had successful travelling experience, but no present connection; good French, and would not object to travel abroad. Apply, 131/9, Office of this Paper.

COMPETENT (27) seeks situation in Laboratory; 11 years' previous experience in the Manufacture of Pharmaceuticals and Speciality Preparations. Lee, Nine Springs, Hitchin.

EXCEPTIONALLY experienced worker available; technical, commercial, administrative; successful foreign representation; extensive connection all lines still alive; investment if necessary. 125/25, Office of this Paper.

POST as Traveller to firm of Wholesale Druggists or Surgical-instrument makers. "J." (134/33), Office of this Paper.

QUALIFIED active, experienced, in close touch with large London Retail houses, desires position with enterprising firm, either as Representative or indoors, where opportunity would be given to push business with large buyers. "Willing" (134/28), Office of this Paper.

TRAVELLER, already working Lancashire, Cheshire, North Wales for well-known firm of Manufacturers, Packed goods and Toilet Articles, is open for another commission not clashing. Address, "Traveller," 42 Chepstow Street, Walton, Liverpool.

TRAVELLER, good general connection, seeks engagement. F. Knowles, 1 Cullum Street, E.C.

REPRESENTATIVE.—Chemist (37), with connection in North England and Scotland, wishes to Represent a firm in good-class Drugs or Packed goods, on commission or otherwise; references. 134/8, Office of this Paper.

WANTED, by first-class Salesman, covering all England, Wales, good selling Toilet articles or Speciality; small expenses and commission. "Business" (131/28), Office of this Paper.

YOUNG man (24) desires position in provincial house; Wets, Drys, Sundries, and Despatch Counter experience; excellent references. Hunt, 34 Moira Street, Leicester.

SITUATIONS WANTED

(Colonial, Indian, and Foreign).

1s. for 12 words or less; 6d. for every 10 words beyond, prepaid. Replies addressed to this office will be forwarded to the advertiser for an additional charge of 6d.

This heading is reserved for assistants seeking situations in the British Colonies, India, and Dependencies or elsewhere abroad.

FRANCE.—Season; qualified; 26; high-class Dispensing and Counter experience. 135/24, Office of this Paper.

SOUTH OF FRANCE.—Qualified; 23; all-round experience, including two years West End of London; good address; some knowledge of French; disengaged September 23. "Chemist," Fairholme, Greenhill, Harrow.

MISCELLANEOUS.

MADAM & TUCKNISS, Sharedealers, Bank Chambers, Blackheath, S.E. Established 1898. Telephone 81 Lee Green. SHARES FOR SALE (free of commission, subject).—100 Idrls "A" 6 per cent. Preference, 5s.; 200 G. B. Kent 5½ per cent. Preference, 15s. 9d.; 200 A. J. White Preference, 8s. 9d.

WANTED (subject).—50 Camwal Preference, 4s. 3d.; 200 Allenbury "A" Preference, 23s. 6d.; £200 Idrls Debenture, 6l; Southall Bros. & Barclay, 33s. 6d.; 50 Evans Lescher & Webb Preference, 101s. 6d. List of Shares for Sale and Wanted sent free on application. Every effort made to effect business for Buyers or Sellers in all Stocks and Shares. Bankers, London and County and Westminster.

CHEMISTS' FITTINGS (bargains).—16-ft. Drugfitting, mirror Poison Cupboards, Cornice complete, £14 10s.; Mahogany Plate-glass Wall-case, 10 ft., £13 10s.; Mahogany Plate-glass 7-ft. Dispensing-screen, bevelled mirror centre, £5; Serving Counter, 12 ft., Glass Doors, Mahogany Top, £7 10s.; Nests of strong Counter Drawers, from 27s. 6d.; Mahogany and bent Plate-glass Counter-cases, 4 ft. 75s., 5 ft. 87s. 6d., 6 ft. 97s. 6d.; all goods as new. Send for sketches to H. Mills, Chemists' up-to-date Shopfitter, Shop Front Builder, Steam Works, 163-5 Old Street, E.C.

SECOND-HAND CHEMISTS' FITTINGS.—We have an exceptionally fine selection of these in all sizes; prices are right and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, RUDDUCK & CO., 262 Old Street, E.C.

CHEAP SHOPFITTINGS.—One good 2-ft. Perfume-case and Desk, 40s.; 1 5-ft. Nest of 16 Counter Drawers, 25s.; 1 10-ft. Counter, with 8 Drawers, 47s. 6d.; 1 very good 6-ft. arched mirror-centre Dispensing-screen, £4 15s.; 1 12-ft. Range Mahoganyised Drug Drawers, with Glass Labels and Knobs, £7; set of 132 Stopped Rounds, Gold Labelled, £5. R. TOMLINSON & SONS, Complete Chemists' Shopfitters, Bond Street, Constitution Hill, Birmingham.

CHEMISTS' Shopfittings.—Window Enclosures, Showcases, Silent Salesman, Dispensing Screens, Wall-cases, Perfume-cases, Glass-front Serving Counters, Drug Drawers, Counter Drawers, second-hand, shop soiled, at unbeaten prices; you can't do better; 30 years fitting Pharmacies. Send for free estimate, George Cook, The Working Shopfitter, 30 Buttesland Street, East Road (near Old Street Tube Station).

CHEMISTS' SHOPFITTINGS (second-hand).—Very large quantity of Wall Fittings, Show-cases, Dispensing Screens, Perfume-cases, etc., etc., to clear for cash; great bargains; call and view, or send sizes of what you require; these goods must be sold. PHILIP JOSEPHS, 85 Old Street, Goswell Road, London, E.C.

SODA-WATER Trolley, that makes heavy work light, and on which a boy of 8 can easily convey 3 dozen syphons; will go through any doorway; fitted with patented wheels; dozens in use in all parts of the country; carriage paid 37s. Sole Makers, Arthur & Co., 9 K.P., Cambridge.

SCHEDULE OF POISONS.—We have reprinted our card containing the Schedule of Poisons according to the Poisons and Pharmacy Act, 1908, with a supplementary list of poisons prepared by our editorial staff; it also includes concise statements in regard to the law as to the sale of agricultural and horticultural poisons, mineral acids, soluble oxalates, and liquid ammonia. Copies of the card can be obtained from our office, 42 Cannon Street, London, E.C., at 4d. each, post free, or 3s. per dozen.

To CHEMISTS' ASSISTANTS and EMPLOYEES and DISPENSERS in Hospitals, &c. (MALE and FEMALE).

Are you aware that the **CHEMISTS' FRIENDLY SOCIETY** is approved for the purposes of the National Insurance Act, and if so have you joined? Every member is invited to secure another. Union is strength! Forms from the **MANAGER**, 194 ST. VINCENT STREET, GLASGOW.

CHEMISTS' TICKETS !

F. MERTEN & CO. Advise all Chemists (before placing their orders) to write for Samples of their **MOST SELECT, EFFECTIVE, & CHEAPEST WINDOW TICKETS OBTAINABLE**; also a Specialty of theirs is the production of Display Figure-Sketch Cards, portraying various ailments, etc.
Write at once—72 MARLBOROUGH RD., UPPER HOLLOWAY, LONDON, N., to obtain satisfaction.

**GET
ON
OR
GET
OUT**

is an American motto, but there is much truth in it. Personally I have no patience with unambitious men, every business should increase its turnover and profits each year. My system ensures this if subscribed for and followed. Bear in mind I am an enthusiast, and won't let you go to sleep if I can help it. Booklet free get it and get on.
BERNARD SLACK, 9 King St., Wolverhampton. Nat. Tel. 581.

NO CATCHPENNY METHODS

are required when you use my Business System. Refined ideas, up-to-date Specialities and high-class advertising are my Speciality. Please note my new advertising scheme is NOT an expensive one, and is entirely different to any other. A Pharmacist writes this week: "It is great; just the thing required by the present-day Pharmacist. No one need hesitate to use your methods." Send for Booklet explaining my methods, post free Pharmacist only. See advt. under formula.

BILLYARD ALLISON, Pharmacist & Business Specialist, RETFORD.

**THYROIDS, PITUITARIES, OVARIES,
SUPRARENALS, PROSTATES, &c.,**

— OF —
SHEEP, OX, and PIG.

Before giving your orders for the above **Animal Substances**, you will save much money by writing for quotations, to No. 22, 31 Office of this Paper.

SHOPS ACT, 1912.

THE Section 4 notice-card (size 14 in. by 11 in.) required by chemists who serve customers with medicines and medical and surgical appliances after 1 P.M. on early-closing days can be obtained from the offices of the **C. & D.**, 42 Cannon Street, London, E.C., for 3s. 6d. per dozen, or 8d. for two delivered free.

EXCHANGE COLUMN

One halfpenny per word with name and address. One penny per word if we register the address and attach a number.

No advertisement inserted for less than 6d.

FOR DISPOSAL.

DENTAL

DENTURES (4) for show-case, new; price 40s. "DENTAL" (133/31), Office of this Paper.

DENTAL vulcaniser (Ash), five flash, Gartrell's improved gauge fitted; £3 10s. carriage forward. "DENTAL," 21 Landport Terrace, Southsea.

DRUGS AND CHEMICALS.

LAVENDER.—Winchester finest English oil, guaranteed 12 years old; in excellent condition; what offers? "LAVENDER" (131/2), Office of this Paper.

WINCHESTER quart ol. lav. ang. Mitch., B. H. & Co., 1901, with addition of 10 per cent. absolute alcohol, beautiful odour; 40s. per lb.; sample half ounce 1s. 6d. **BUTLER**, Chemist, Reading.

OPTICAL AND PHOTOGRAPHIC.

KODAK, No. 1, £2 2s. (as new); 15s. 6d. **BUTLER**, 38 Abingdon Street, Blackpool.

PILLAR microscope, ball and socket motion, rack adjustment, 2 eyepieces, $\frac{1}{2}$ and $\frac{3}{4}$ in. objectives, and cabinet; cost £3 15s.; what offers? 30 Havelock Square, Sheffield.

MISCELLANEOUS.

CHEMIST'S syphon trolley, in good condition, for sale. Can be viewed at 112 Pembroke Street, Caledonian Road, N.

WHAT offers? Strong brass-bound oak medicine chest, 21 by 13 by 14, with drawer, mortar, and 46 $\frac{1}{2}$ lb. cut stoppered bottles. **SUMNER**, Market Square, Buckingham.

WANTED.

WANTED, metal outside sign, with City or S.M.C. arms. **GIBSON**, Optician, Hexham.

OPTICAL books; Minor, Major, Chemists' books; send prepaid for valuation; cash offers per return. **GOWER**, Bookseller, Waterloo, Liverpool.

MIXING and sifting machine for hand use, small size; "Gardners" or "Comet" preferred. Description and price, 40 Smith Street, Oldham.

SQUIRE'S "Companion," British Pharmacopoeia, Codex, latest wall and counter cases, show desk, 40 oz. recess pots, perfume and recess bottles, 4 ft. counter. Condition, price, "M." c/o Haggart, Croftbank, Abernethy, Perthshire.

THE EXCHANGE COLUMN.

TO BUYERS AND SELLERS.

We take every care to ensure that proprietary and other goods advertised in this column are genuine surplus stock of reputable persons in business, and are compelled to refuse advertisements sent by those who, when occasion requires, decline to satisfy reasonable inquiries as to their *bona-fides*.

We again call the attention of those who use this column for the sale or purchase of goods to the desirability of using our Deposit System. Some forward goods before they receive money for them, and others forward money to advertisers before they have even seen the goods. Disappointment in such circumstances is bound to happen now and then, and it is to prevent this, as well as to check fraud, that our Deposit System was instituted.

The buyer sends us the money for the goods, and when we hear from him that they are satisfactory, and not till then, we hand over the money to the seller. A commission of 6d. is charged by us on any transaction of 3l. or less, and 1s. if above that amount. The commission is payable by the buyer, and should be included in the money sent to us. All Cheques and Postal Orders should be made payable to "Edward Halse," and crossed "Martin's Bank, Ltd."

TRADE-MARKS.

Objections to the registration of any of the undermentioned applications must be stated on Form T.M. No. 7 (obtainable at Money Order Offices for £1) and lodged with Mr. Temple Franks, Comptroller-General, Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned.

The figures in parentheses refer to the classes in which the marks are desired.

(From the "Trade-marks Journal," August 7, 1912.)

Label devices of: Wreath of flowers and words "DR. STOHR'S BATH-TABLETS," etc.; man being shampooed and words "DR. STOHR'S SHAMPOO-TABLETS," etc.; tumbler, tooth-brush, three men, and words "DR. STOHR'S MOUTH-WASH TABLETS," etc.; girl's head and words "DR. STOHR'S EAU DE QUININE TABLETS," etc.; for tablets (48). By Dr. Franz Stohr, g.m.b.h., Raimundgasse 6, Vienna. 342,662/4/5/6.

"VELVIDIUM"; for non-medicated toilet preparations (48). By The Standard Tablet and Pill Co., Ltd., 2 Hove Park Villas, Hove, Sussex. 342,901.

"COMEDY"; for perfumery, etc. (48). By Lever Bros., Ltd., Port Sunlight, Cheshire. 343,883.

(From the "Trade-marks Journal," August 11, 1912.)

"SALVET" and circle containing animals' heads; for veterinary medicines (2). By S. R. Feil Co., 5912 Central Avenue, Cleveland, Ohio, U.S.A. 343,643.

Device including words "INSIDE-US" and "MORRISOL" and monogram "H. M." ("Inside-us" and "Morrisol" disclaimed); for sanitary chemicals (2). By Mrs. Harry Morris, 24 Minard Road, Catford, London. 343,903.

"PROXY"; for all goods (2). By J. Hutcheon, 35 Jeffrey Street, Edinburgh. 343,750.

"HEPIN"; for an oxygen-bath preparation (3). By Carl Siebert, Breiterweg 5, Marburg an der Lahn, Germany. 341,321.

"LEONOL"; for all goods (3). By Macaulay & Co., 38 Cours Gambetta, Lyon, France. 341,486.

"RIPOKURE"; for medicinal chemicals (3). By R. E. O. Beach, 1 Kirkgate Head, Ripon. 342,399.

"PHYLLACOGEN"; for all goods (3). By Parke, Davis & Co., 50-54 Beak Street, London, W. 343,236.

"DENSINE"; for medicinal chemicals (3). By T. F. Bristow & Co., Ltd., 13 St. James's Walk, Clerkenwell, London, E.C. 344,210.

"SIBRA"; for medicinal chemicals (3). By Squire & Sons, 413 Oxford Street, London, W. 343,700.

"LUBRICOL"; for a medicine (3). By R. M. Hutchinson-Low, 70 Philbeach Gardens, Earl's Court, London, S.W. 343,720.

"CYS-GO-PACKING"; for all goods (3). By A. Wulfig & Co., 12 Chénics Street, London. 343,911.

"SAFORKROL"; for medicinal chemicals (3). By Reynolds & Branson, Ltd., 14 Commercial Street, Leeds. 343,965.

"MICALIN"; for all goods (3). By Farbwerke vorm. Meister, Lucius & Brüning, Hoechst a/Main, Germany. 344,117.

"HYTOTUBE" and device; for all goods (11). By Evans Sons Lescher & Webb, Ltd., 56 Hanover Street, Liverpool. 342,688.

"OL VIRGIN MENTH. PIP. ANG. OPT." and circular device of spray of peppermint in star with words "THE VIRGIN MITCHAM PEPPERMINT OIL CO." ("Virgin" disclaimed); for peppermint oil (42). By The Virgin Mitcham Peppermint Oil Co., Upper Green, Carshalton Road, Mitcham. 336,225.

"ETVELL" for a perfumed soap (48); "PLUVARIUM" for an eyebrow-grower (48); "PROLACTUM" for a lip-salve (48); "ONALITE" for a foot-powder (48); "PILENTA" for a perfumed soap (48); "STALLAX" for a shampoo-preparation (48). By Dearborn, Ltd., 32 and 34 Theobald's Road, London, W.C. 343,520, 343,523, 343,793, 344,083, 344,085/6.

Classical device and word "CLASSIC"; for all goods (48). By Prescott & Co., 63 Corporation Street, Manchester. 343,487.

"GLYROL"; for a shaving preparation (48). By J. Barnsley, 1 and 2 Gracechurch Street, London, E.C. 343,584.

"RUSHTARINE"; for a hair-cream (48). By W. Rusch, 8 Lenthall Place, Gloucester Road, London, S.W. 344,059.

DENTAL NOTES.

Iodo-glycerol.

DR. EUGENE TALBOT, Chicago, uses the following iodine solution for painting on the teeth before scaling, as well as on the gums. He calls it iodo-glycerol:

Zinc iodide ...	...	...	15 parts
Iodine ...	...	...	25 parts
Glycerin ...	...	...	50 parts
Water ...	...	...	10 parts

Dissolve.

Dental Alloy.

THIS is an alloy of silver and platinum, the quantity of the latter varying from 20 to 30 per cent. according to the quality. The greater the proportion of platinum added in the making of the alloy, the less malleable and ductile it becomes. It was greatly used in the making of artificial dentures, being very durable, rigid, and strong, but owing to the present scarcity of platinum, with its relatively high price, it is as cheap, if not cheaper, to make the denture (should a metal plate be desired) in gold, and thus the use of dental alloy has of late years been gradually growing less and less. The alloy is hardened by hammering, and during the swaging or striking-up process it requires annealing from time to time to prevent cracking. The union of any clasps, or of the teeth (which, after setting up, have been previously backed with dental alloy), and the plate is made by means of gold solders. It stands the stress and strain put upon it in the mouth extremely well, as also the action of the oral fluids; and although the platinum does not wholly protect the silver from the action of sulphuretted hydrogen, it does not blacken to any appreciable extent even when in use for years.

Periodical Examination of the Teeth.

THE following observations are intended for customers and patients:

All who value their teeth should arrange with their dentist to have them examined every six months, or at the very least once a year. In this way the slightest appearance of decay is at once detected and put right, and all without pain or worry to the patient, who, if he had waited until the hole had been detected either by the tooth suddenly breaking down or by toothache, would have come with dread and in many cases a high state of nervousness, which when the visit to the dentist is over may be followed by a reaction, in some cases hysteria or collapse. It is no exaggeration to say that every dentist takes a pride in his patients who have sound teeth and healthy mouths, and will do his utmost to advise and help the patient to keep them in this condition. In the interests of health alone good teeth are essential, for if once the teeth get out of order many other disorders start, such as faulty mastication with resulting dyspepsia, chronic indigestion, flatulence, and disorders of the bowels. Bad teeth are blamed for many other maladies nowadays, and some surgeons will not operate on the alimentary canal until the mouth and teeth are put into a thoroughly antiseptic condition. This antiseptic treatment is continued during the whole period of recovery from the operation and convalescence. It will thus be seen that the trouble taken in looking after the mouth and teeth is not time wasted. The success of many men depends in no slight degree on their physical health, and with a good sound constitution who may not undertake any work, however severe it may be?

OXYGEN-BATHS.—The "most effective and the least expensive" method of producing oxygen for baths, according to Mr. W. Armstrong, M.R.C.S., is "radiozone," devised by Mr. Wright, of Buxton.

VAGUELY WORDED INQUIRIES.—The British Consul at Stettin, in his annual report, draws attention to the vague manner in which many inquiries from British firms are worded. Requests for the names of agents and customers are so drawn up that it is difficult to arrive at a definite conclusion as to what may be required of the agent, or what terms are offered, whether to sell on commission, etc., or what particular article is to be handled, so that the selection of a likely person among the large number of agents becomes frequently more a matter of chance than of suitability. The above remarks apply equally to firms desiring to export such articles as chemicals, drugs, etc. The bare mention of the name of a chemical, without any details as to the trade or industry in which it is used, renders it no easy matter, in many cases, to ascertain which factories may use, or firms purchase, the product in question.

PATENT SPECIFICATIONS.

Printed copies of the following specifications are on sale (8d. each) at the Patent Office, 25 Southampton Buildings, London, W.C., a fortnight after the notice of acceptance has appeared in the "Official Journal" (Patents) of the given dates. Persons desirous of opposing the grant of a patent must do so in the prescribed form within two months from the date of the "Journal" in which the notice appeared.

Specifications Accepted.

July 3, 1912.

- PROCESS OF MANUFACTURING UREA. 20611/11. Immen-dorff & Kappen.
RECEPTACLES FOR RUBBER SOLUTION. 27617/11. Nitzgen.
MANUFACTURE OF COPPER OXIDE AMMONIA CELLULOSE SOLUTION. 27835/11. E. de Haen Chemische Fabrik "List."
PRODUCING VAPOURS FOR INHALATION. 4748/12. Walker.
CALCIUM SALT OF ACETYL-SALICYLIC ACID. 4986/12. Gedeon Richter.
HALOGEN DERIVATIVES OF THE PARAFFIN SERIES. 5125/12. Badische Anilin- und Soda-Fabrik.
PRODUCTION OF SULPHURETTED HYDROGEN. 6672/12. Carpenter.
QUEBRACHO EXTRACTS. 7389/12. Redlich & Deutsch.

July 10, 1912.

- EAR-TRUMPETS. 15481/11. Messenger.
PREPARATIONS CONTAINING FORMIC ALDEHYDE. 15671/11. Sefton-Jones. (Von Wülfig.)
MANUFACTURE OF ACETIC ACID. 17424/11. Johnson. (Chemische Fabrik Griesheim-Elektron.)
FEEDING-BOTTLES. 18320/11. De Bock.
MANUFACTURE OF SALT. 20706/11. Webster and International Salt Co.
SEPARATION OF META- AND PARA-CRESOL. 25166/11. F. Hoffmann-La Roche & Co.
SULPHUR DERIVATIVES FROM GLYCERIN. 25246/11. Lilienfeld.
MANUFACTURE OF CREAM OF TARTAR. 25573/11. Perigny, Chabert & Pegaz.
MANUFACTURE OF ESTERS. 26503/11. Newton. (Farbenfabriken vorm. F. Bayer & Co.)
PRODUCTION AND APPLICATION OF INTERMITTENT X-RAYS. 27227/11. Schall.
REDUCING STANNIC OXIDE. 27606/11. Metzl.
ESTERS OF HYDROCINCHONA ALKALOIDS. 27952/11. Johnson. (Vereinigte Chininfabriken Zimmer & Co. Ges.)
CONCENTRATING AQUEOUS SOLUTIONS AND TOBACCO-LYES CONTAINING FREE NICOTINE. 28085/11. Sartig.
TOOTH-BRUSHES. 9388/12. Bainfield.
DEVICES FOR PREVENTING SNORING. 9390/12. Hersing.
MANUFACTURE OF COCAINE ISOVALERIANATE. 10750/12. Theodor Teichgraber.

July 17, 1912.

- DIGESTIVE CHOCOLATE. 15664/11. Dardenne.
MANUFACTURE OF NITRIC ACID. 15948/11. Imray. (Die Farbwerke vorm. Meister, Lucius & Brüning.)
MANUFACTURE OF DEXTRIN. 16284/11. Hervey.
PROCESS FOR PRESERVING WOOD. 16433/11. Newton. (Farbenfabriken vorm. F. Bayer & Co.)
MANUFACTURE OF CAOUTCHOUC. 23723/11. Johnson. (Badische Anilin- und Soda-Fabrik.)
PREPARATION OF ANHYDROUS BORAX. 25167/11. Chemische Fabrik Grunau, Landshoff & Meyer Akt.-Ges., and Brand.
STETHOSCOPES. 25686/11. Teske.
STERILISING LIQUIDS BY ULTRA-VIOLET RAYS. 28757/11. Thompson. (Ozongesellschaft.)
SEPARATION OF TAR AND AMMONIUM CHLORIDE IN GASES. 2857/12. Brougham. (Solway et Cie.)
BLEACHING FATS AND OILS. 3433/12. Badische Anilin- und Soda-Fabrik.
PESSARY. 4034/12. Petersen.
MANUFACTURE OF BLEACHING-POWDER. 6251/12. Marsh.
MANUFACTURE OF C-MONO AND C. C-DIALLYL-BARBITURIC ACID. 9078/12. Ges. für Chemische Industrie in Basel.
TEATS FOR CHILDREN. 9570/12. Burton.
DRIPLESS POURING-BOTTLE STOPPER. 9831/12. Pouring-cork Co. and Jackson.

July 24, 1912.

- OILS AND FATS AND COMPOUNDS THEREOF. 9023/11. Lake. (Blakeman.)
COLOUR-PHOTOGRAPHY. 16201/11. Courmont.
MANUFACTURING A MIXED GAS. 16373/11. Pictet.
TREATING THE SKIN WITH STEAM FOR CURATIVE PURPOSES. 17499/11. Whitehorne-Cole.
MANUFACTURE OF BLEACHING-POWDER. 19288/11. Marsh.

- TOOTH-BRUSHES. 19409/11. Costobadie.
DETECTING GASES IN MINES. 19663/11. Barry.
UTILISATION OF WASTE GASES FOR PRODUCTION OF CALCIUM CYANAMIDE AND CARBON BISULPHIDE. 21589/11. Govan.
FORMALDEHYDE SULPHOXYLATES. 22453/11. Johnson. (Badische Anilin- und Soda-Fabrik.)
FIXING ATMOSPHERIC NITROGEN BY ANTIOXIDATION. 24035/11. Kaiser.
PRODUCTION OF SULPHATE OF AMMONIA. 26429/11. England.
REFINING RAW PITCH, PINE OIL, AND TURPENTINE OIL. 4775/12. Schindelmeyer.

July 31, 1912.

- FLAT-FOOT APPLIANCE. 16717/11. Holland.
RECOVERY OF NITROUS PRODUCTS IN MANUFACTURE OF SULPHURIC ACID. 16866/11. Tarbaud and Truchot.
MACHINE FOR MARKING THERMOMETER TUBES. 17408/11. Perken, Son & Co. and Perken.
SOLDERING COMPOSITION-PASTE. 18513/12. Brach.
MEDICAL INHALERS. 20911/11. Weller.
PRODUCTION OF ISOPRENE. 24549/11. Newton. (Farbenfabriken vorm. F. Bayer & Co.)
MANUFACTURE OF AMMONIA. 24657/11. Badische Anilin- und Soda-Fabrik.
THERAPEUTICAL COMPOUNDS AND NEW INTERMEDIATE PRODUCTS. 27112/11. Newton. (Farbenfabriken vorm. F. Bayer & Co.)
ATOMISERS. 2450/12. Rachmann.
GAS FROM BENZOL. 3036/12. Perrier & Menoux.
NITROGEN COMPOUNDS. 3410/12. Schweitzer & Hanff.
DENTIFRICES. 5058/12. Percival & Willcocks.
MANUFACTURE OF ALUMINIUM NITRIDE. 8348/12. Soc. Générale des Nitrures.
FIELD DISPENSARIES. 12758/12. Pentrup & Vogt.

Open for Inspection.

- APPARATUS FOR OBTAINING LOW TEMPERATURES. 13966/12. Josse & Gensecke.
PREPARATION OF BENZOYL DERIVATIVES. 14476/12. R. Wedekind & Co.
CELLULOSE ESTERS SOLUBLE IN CHLOROFORM. 20978/11. Dreyfus.
STAINLESS SOLUTIONS CONTAINING SAPONIN. 8704/12. Mandbaum and Dr. A. Kauffmann & Co.
DOUBLE SALTS OF MORPHINE AND NARCOTINE. 13293/12. C. F. Boehringer & Soehne.
SCREENS FOR COLOUR-PHOTOGRAPHY. 15027/12. Dufay.
EXTRACTING OIL FROM OLEAGINOUS STONE FRUITS. 15253/12. Fried. Krupp Akt.-Ges., Grusonwerk.
NEW DERIVATIVES OF BARBITURIC ACID. 15451/12. Farbenfabriken vorm. F. Bayer & Co.
APPARATUS FOR DETERMINING THE SPECIFIC GRAVITY OF GASES. 15787/12. Dosch.
GENERATION OF HYDROGEN. 12117 and 12242/12. Messerschmitt.
MANUFACTURING GUM OR MUCILAGE FROM LOCUST-BEANS. 15783/12. Pinel.
HYPODERMIC SYRINGES. 16062/12. Greeley.
TOOTH-BRUSH. 16518/12. Sarrazin.
SUBSTANCES FOR CURING AND PREVENTING TUBERCULOSIS. 16692/12. Friedmann.
MANUFACTURE OF SULPHURETTED HYDROCARBON FROM ACETYLENE. 16810/12. Steinkopf & Kirchhoff.

CANADIAN NEWS.

(From the "C. & D." Correspondent.)

NEW CHEMICAL COMPANY.—A company has been formed in Montreal with a capital of \$500,000 (about 102,750l.), to manufacture and deal in all chemical products and explosives.

EXPANDING TRADE.—The revenue of the Dominion Customs promises this year to exceed \$100,000,000. For the four months of the fiscal year ended July 31 the returns were \$36,250,028, an increase of \$10,352,000 over the same period in 1911.

B. C. P. ASSOCIATION.—The annual dinner of the British Columbia Pharmaceutical Association was held on June 13 at Victoria, and was a very pleasant function. The toast of the "B. C. P. A." was proposed by Mr. John Cochrane, and replied to by the President (Mr. J. L. White), Mr. E. S. Knowlton, a councillor, and Mr. J. W. Browne, Registrar-General.

From "THE ANTI-CUTTING RECORD."

¶ "IT is now nearly 11 years since the movement which resulted in the formation of the P.A.T.A. was inaugurated. Amongst the first of the fighters for protected profits was Mr. Davenport, the proprietor of **COLLIS BROWNE'S CHLORODYNE**. At a time when the Association had a few supporters and looked rather like being crushed by the opposition which it encountered, Mr. Davenport's assistance came very opportunely, and dealers in Chlorodyne might well bear this fact in mind when selecting a brand to sell to their customers. We think that those who helped to lay the foundation of the P.A.T.A. are entitled to special consideration at the hands of those whom the Association has so much benefited. It should always be remembered that the pioneers ran much heavier risks than those who have come in on the flood-tide after the success of the movement was assured, although of course we are in no sense despising or underrating the importance of more recent converts to the Association, and do not for a moment suggest that they should not be supported. All those proprietors who have stood by the P.A.T.A. through thick and thin ought to be put in an exceptional position in comparison with those who have never done a thing for the trade. If chemists *must* substitute (and it really seems as if some of them can hardly restrain their propensities), surely they might confine their operations to the goods of those makers whose motto is 'Self, and self alone.' We think no fair-minded retailer will, after full reflection seriously blame the P.A.T.A. Council for insisting that substitution must cease when the proprietor loyally does his part."

Purchasers must NOT be asked to sign a Poison Book.

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Pharmaceutical Journal, October 22, 1904.

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